L17 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:791542 HCAPLUS
DOCUMENT NUMBER: 137:290042
TITLE: Neisseria gonorrhoeae proteins and nucleic acids and their use for diagnosis and treatment by streptococcus bacteria
INVENTOR(S): Fontana, Maria Rita; Pizza, Mariagrazia; Masiginani, Vega; Monaci, Elisabetta
PATENT ASSIGNEE(S): Chiron Spa, Italy
SOURCE: PCT Int. Appl., 815 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079243	A2	20021010	WO 2002-XA2069	20020212
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2002079243	A2	20021010	WO 2002-IB2069	20020212
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: GB 2001-3424 A 20010212
WO 2002-IB2069 W 20020212

AB The invention provides 4211 proteins from gonococcus (Neisseria gonorrhoeae strain FA1090), including amino acid sequences, the corresponding nucleotide sequences, expression data, and serol. data. One hundred fifty-nine of these proteins have no homolog in serogroup B meningococcus. The proteins are useful antigens for vaccines, immunogenic compns., and/or diagnostics. They are also useful for distinguishing between gonococcus and meningococcus and, in particular, between gonococcus and serogroup B meningococcus. [This abstract record is one of two records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L17 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:157999 HCAPLUS
DOCUMENT NUMBER: 136:211938
TITLE: Cloning of outer surface protein genes of Neisseria meningitidis useful for the development of novel antibacterial agents and vaccines
INVENTOR(S): Lane, Jonathan Douglas; Hughes, Martin John Glenton; Santangelo, Joseph David
PATENT ASSIGNEE(S): Microscience Limited, UK
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002016612	A2	20020228	WO 2001-GB3759	20010821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001082299	A5	20020304	AU 2001-82299	20010821

PRIORITY APPLN. INFO.: GB 2000-20952 A 20000824
WO 2001-GB3759 W 20010821

AB A series of genes from Neisseria meningitidis are shown to encode products which are targets for immunization. Specifically, 17 outer surface protein genes are cloned from Neisseria meningitidis. The gene and gene product may be of use in diagnosis and identification of the pathogen and in screening for and development of novel antibacterial agents and vaccines.

L17 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:851207 HCAPLUS
DOCUMENT NUMBER: 135:369157
TITLE: Mutations in virulence proteins from Neisseria meningitidis and their use in vaccines for meningitis
INVENTOR(S): Tang, Christoph
PATENT ASSIGNEE(S): Microscience Limited, UK
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001087939	A2	20011122	WO 2001-GB2247	20010518

WO 2001087939 A3 20020328
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: GB 2000-12079 A 20000518
AB A series of genes from Neisseria meningitidis are shown to encode products which are responsible for DNA uptake. The identification of these genes therefore allows attenuated microorganisms to be produced that have a reduced ability to take up DNA. Microorganisms of the invention may be used in the production of genetically stable mutant microorganisms. The genes or their encoded products can be used in the manufacture of vaccines for therapeutic application.

L17 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:833359 HCAPLUS
DOCUMENT NUMBER: 135:367736
TITLE: Virulence genes and proteins from Neisseria meningitidis and their use in vaccines and antimicrobial agent manufacture
INVENTOR(S): Tang, Christoph
PATENT ASSIGNEE(S): Microscience Limited, UK
SOURCE: PCT Int. Appl., 423 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085772	A2	20011115	WO 2001-GB2003	20010508
WO 2001085772	A3	20020328		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2000-11108 A 20000508
AB A series of 104 genes from Neisseria meningitidis C311+, and ET-55 serotype B, are shown to encode products which are implicated in virulence. The identification of these genes therefore allows attenuated microorganisms to be produced. Furthermore, the genes or their encoded products can be used in the manufacture of vaccines for therapeutic application. Antibodies raised against the protein

products of 5 of the genes recognized several different strains of N. meningitidis B.

L17 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:396693 HCAPLUS
DOCUMENT NUMBER: 135:32728
TITLE: Compositions comprising Neisseria meningitidis antigens from serogroups B and C
INVENTOR(S): Giuliani, Marzia Monica; Pizza, Mariagrazia; Rappuoli, Rino
PATENT ASSIGNEE(S): Chiron Spa, Italy
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001037863	A2	20010531	WO 2000-IB1940	20001129
WO 2001037863	A3	20011227		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1235589	A2	20020904	EP 2000-981554	20001129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: GB 1999-28196 A 19991129
WO 2000-IB1940 W 20001129

AB International patent application WO99/61053 discloses immunogenic compns. that comprise N. meningitidis serogroup C oligosaccharide conjugated to a carrier, in combination with N. meningitidis serogroup B outer membrane protein. These are disclosed in the present application in combination with further Neisserial proteins and/or protective antigens against other pathogenic organisms (e.g. Haemophilus influenzae, DTP, HBV, etc.).

L17 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:603693 HCAPLUS
DOCUMENT NUMBER: 134:52089
TITLE: Allelic diversity of the two transferrin binding protein B gene isotypes among a collection of Neisseria meningitidis strains representative of serogroup B disease: implication for the composition of a recombinant TbpB-based vaccine
AUTHOR(S): Rokbi, Bachra; Renauld-Mongenie, Genevieve; Mignon, Michele; Danve, B.; Poncet, David; Chabanel, Christophe; Caugant, Dominique A.; Quentin-Millet, Marie-Jose

CORPORATE SOURCE: Aventis Pasteur, Marcy-L'Etoile, 69280, Fr.
SOURCE: Infection and Immunity (2000), 68(9), 4938-4947
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The distribution of the two isotypes of tbpB in a collection of 108 serogroup B meningococcal strains belonging to the four major clonal groups associated with epidemic and hyperendemic disease (the ET-37 complex, the ET-5 complex, lineage III, and cluster A4) was determined Isotype I strains (with a 1.8-kb tbpB gene) was less represented than isotype II strains (19.4 vs. 80.6%). Isotype I was restricted to the ET-37 complex strains, while isotype II was found in all four clonal complexes. The extent of the allelic diversity of tbpB in these two groups was studied by PCR restriction anal. and sequencing of 10 new tbpB genes. Four major tbpB gene variants were characterized: B16B6 (representative of isotype I) and M982, BZ83, and 8680 (representative of isotype II). The relevance of these variants was assessed at the antigenic level by the determination of cross-bactericidal activity of purified IgG prepns. raised to the corresponding recombinant TbpB (rTbpB) protein against a panel of 27 strains (5 of isotype I and 22 of isotype II). The results indicated that rTbpB corresponding to each variant was able to induce cross-bactericidal antibodies. However, the number of strains killed with an anti-rTbpB serum was slightly lower than that obtained with an anti-TbpA+B complex. None of the sera tested raised against an isotype I strain was able to kill an isotype II strain and vice versa. None of the specific antisera tested (anti-rTbpB or anti-TbpA+B complex) was able to kill all of the 22 isotype II strains tested. Moreover, using sera raised against the C-terminus domain of TbpB M982 (amino acids 352 to 691) or BZ83 (amino acids 329 to 669) fused to the maltose-binding protein, cross-bactericidal activity was detected against 12 and 7 isotype II strains, resp., of the 22 tested. These results suggest surface accessibility of the C-terminal end of TbpB. Altogether, these results show that although more than one rTbpB will be required in the composition of a TbpB-based vaccine to achieve a fully cross-bactericidal activity, rTbpB and its C terminus were able by themselves to induce cross-bactericidal antibodies.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:402004 HCAPLUS
DOCUMENT NUMBER: 133:39137
TITLE: Sequences of **Neisseria meningitidis** protein **BASB040**, and uses thereof in vaccines and in diagnostic applications
INVENTOR(S): Ruelle, Jean-Louis
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034480	A1	20000615	WO 1999-EP9560	19991202

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1137778	A1	20011004	EP 1999-961063	19991202

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: GB 1998-26886 A 19981207
WO 1999-EP9560 W 19991202

AB This invention provides sequences of a newly identified **Neisseria meningitidis** protein, designated **BASB040**. **BASB040** was isolated from **N. meningitidis** serogroup B strains ATCC13090 and H44/76. Also disclosed are methods for utilizing **BASB040** in vaccines and in diagnostic assays for detecting diseases associated with inappropriate **BASB040** activity or levels.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:401990 HCAPLUS
DOCUMENT NUMBER: 133:55970
TITLE: Heat shock genes HSP60 and HSP70 and the proteins from Neisseria meningitidis, Candida glabrata and Aspergillus fumigatus and the development of vaccines
INVENTOR(S): Wisniewski, Jan
PATENT ASSIGNEE(S): Stressgen Biotechnologies Corporation, Can.
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034465	A2	20000615	WO 1999-CA1152	19991201
WO 2000034465	A3	20001026		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1137770 A2 20011004 EP 1999-957790 19991201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.: US 1998-207388 A 19981208
WO 1999-CA1152 W 19991201

AB Genes and heat-shock proteins of Neisseria meningitidis (HSP70), Candida glabrata (HSP60) and Aspergillus fumigatus (HSP60) are characterized for use in the development of vaccines against meningitis, candidiasis and aspergillosis. The genes and proteins can also be used in the diagnosis of infections by these organisms. Species-specific PCR primers are described.

L17 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:314839 HCAPLUS
DOCUMENT NUMBER: 132:330635
TITLE: Genes and proteins specific for Neisseria meningitidis and their use in vaccination
INVENTOR(S): Aujame, Luc; Bouchardon, Annabelle; Renauld-Mongenie, Genevieve; Rokbi, Bachra; Nassif, Xavier; Tinsley, Colin; Perrin, Agnes
PATENT ASSIGNEE(S): Pasteur Merieux Serums et Vaccins, Fr.; Institut National de la Sante et de la Recherche Medicale (INSERM)
SOURCE: PCT Int. Appl., 187 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026375	A2	20000511	WO 1999-FR2643	19991028
WO 2000026375	A3	20000817		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2785293	A1	20000505	FR 1998-13693	19981030
FR 2785293	B1	20020705		
AU 9963479	A1	20000522	AU 1999-63479	19991028
EP 1129195	A2	20010905	EP 1999-950875	19991028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: FR 1998-13693 A 19981030
WO 1999-FR2643 W 19991028

AB The invention concerns nucleic acids coding for polypeptides specific for Neisseria meningitidis, the corresponding polypeptides, and their diagnostic and therapeutic applications. Thus, genes and proteins found in N. meningitidis but not in N. lactamica were identified and sequenced.

L17 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:191222 HCAPLUS
DOCUMENT NUMBER: 132:232744
TITLE: BASB033 genes and proteins from Neisseria meningitidis and their use in diagnosis and for vaccination
INVENTOR(S): Ruelle, Jean-louis
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015801	A1	20000323	WO 1999-EP6718	19990909
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2343314	AA	20000323	CA 1999-2343314	19990909
AU 9958622	A1	20000403	AU 1999-58622	19990909
EP 1112366	A1	20010704	EP 1999-946160	19990909
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002528057	T2	20020903	JP 2000-570328	19990909

PRIORITY APPLN. INFO.: GB 1998-20003 A 19980914
WO 1999-EP6718 W 19990909

AB The invention provides BASB033 proteins and genes and methods for producing such proteins by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses. The BASB033 protein from the ATCC13090 strain showed significant similarity (35% identity in a 292 amino acid overlap) with the Klebsiella pneumoniae outer membrane phospholipase A protein. The BASB033 protein for the H44/76 strain displayed .apprx.99% sequence identity with that of the ATCC13090 strain. The protein was produced with recombinant E. coli and used to immunize mice. Almost all N. meningitidis serogroup B strain tested reacted with the antibodies produced by these mice. Anti-BASB033 antibodies were found in sera of convalescent patients. The promoter region of the BASB033 gene was cloned and sequenced.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:764198 HCAPLUS
DOCUMENT NUMBER: 132:19650
TITLE: Protein and DNA sequences of Neisseria meningitidis BASB030 gene epitopes, and uses thereof in vaccine compositions and in assays for the diagnosis of bacterial infections

INVENTOR(S): Ruelle, Jean-louis
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961620	A2	19991202	WO 1999-EP3603	19990526
WO 9961620	A3	20000302		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2329269	AA	19991202	CA 1999-2329269	19990526
AU 9945006	A1	19991213	AU 1999-45006	19990526
EP 1080198	A2	20010307	EP 1999-927754	19990526
R: AT, BF, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
JP 2002516105	T2	20020604	JP 2000-551004	19990526
BR 9911601	A	20010206	BR 1999-11601	19991202
NO 2000005952	A	20010118	NO 2000-5952	20001124

PRIORITY APPLN. INFO.: GB 1998-11260 A 19980526
WO 1999-EP3603 W 19990526

AB The invention provides Neisseria meningitidis BASB030 polypeptides and polynucleotides encoding BASB030 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are antibodies, diagnostic, prophylactic and therapeutic uses thereof. The invention also relates to the use of an immunogenic fragment, preferably the extracellular domain, of the provided protein in a vaccine. The invention further relates to the use of the provided protein and/or gene in the diagnosis of bacterial infections, especially those of Neisseria.

L17 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:736937 HCAPLUS
DOCUMENT NUMBER: 131:347559
TITLE: Basb029 polynucleotide(s) and polypeptides from Neisseria meningitidis

INVENTOR(S): Ruelle, Jean-Louis
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9958683		A2	19991118	WO 1999-EP3255	19990507
WO 9958683		A3	20000406		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2328403		AA	19991118	CA 1999-2328403	19990507
AU 9941420		A1	19991129	AU 1999-41420	19990507
AU 750032		B2	20020711		
EP 1078063		A2	20010228	EP 1999-924946	19990507
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI			
BR 9910396		A	20011030	BR 1999-10396	19990507
JP 2002514424		T2	20020521	JP 2000-548474	19990507
NO 2000005696		A	20010111	NO 2000-5696	20001110
PRIORITY APPLN. INFO.:				GB 1998-10276 A	19980513
				WO 1999-EP3255 W	19990507

AB The invention provides BASB029 polypeptides and polynucleotides encoding BASB029 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses as novel vaccine compns. are relayed. Prognostic and serotyping and mutation assays are all provided. In addition, antagonist and agonist screening assays are provided. Applications for immunization are relayed as well.

L17 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1999:723179 HCAPLUS
DOCUMENT NUMBER:	131:335798
TITLE:	Neisseria meningitidis and N. gonorrhoeae antigens and the genes encoding them for use as vaccine and diagnostic compositions
INVENTOR(S):	Fraser, Claire; Galeotti, Cesira; Grandi, Guido; Hickey, Erin; Masignani, Vega; Mora, Marirosa; Petersen, Jeremy; Pizza, Mariagratia; Rappuoli, Rino; Ratti, Giulio; Scalato, Enzo; Scarselli, Maria; Tettelin, Herve; Venter, J. Craig
PATENT ASSIGNEE(S):	Chiron Corporation, USA; The Institute for Genomic Research
SOURCE:	PCT Int. Appl., 1453 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9957280	A2	20000824	WO 1999-US9346	19990430
WO 9957280	C2	20020829		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,			

SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2330838	AA	19991111	CA 1999-2330838	19990430
AU 9939677	A1	19991123	AU 1999-39677	19990430
EP 1093517	A2	20010425	EP 1999-922752	19990430

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.:	US 1998-83758P	P	19980501
	US 1998-94869P	P	19980731
	US 1998-98994P	P	19980902
	US 1998-99062P	P	19980902
	US 1998-103749P	P	19981009
	US 1998-103796P	P	19981009
	US 1998-104794P	P	19981009
	US 1999-121528P	P	19990225
	US 1998-103794P	P	19981009
	WO 1999-US9346	W	19990430

AB The invention provides 1510 proteins from Neisseria meningitidis and N. gonorrhoeae, including the amino acid sequences and the corresponding nucleotide sequences. The proteins are predicted to be useful antigens for vaccines and/or diagnostics. Conservation of ORFs 225, 235, 287,419 and 919 is confirmed by sequencing of the proteins from multiple strains each. In addition, PCR primer pairs are provided for amplification of the open reading frames.

L17 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	1999:708915 HCAPLUS
DOCUMENT NUMBER:	131:333044
TITLE:	Protein and DNA sequences of Neisseria meningitidis BASB006 gene, and uses thereof in vaccine compositions and in assays for the diagnosis of bacterial infections
INVENTOR(S):	Thonnard, Joelle
PATENT ASSIGNEE(S):	Smithkline Beecham Biologicals S. A., Belg.
SOURCE:	PCT Int. Appl., 103 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955873	A2	19991104	WO 1999-EP2766	19990420
WO 9955873	A3	20000309		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2326375	AA	19991104	CA 1999-2326375	19990420

Baskar
09/936377

key terms

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     FILE 'HCAPLUS' ENTERED AT 09:55:17 ON 14 NOV 2002
L1          3201 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (NEISSER? OR N)(W)MENING
                 IT?
L9             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 AND (BASB040 OR
                 BASBO40)


L1          3201 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (NEISSER? OR N)(W)MENING
                 IT?
L10          728 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1(S)(VACCIN? OR
                 IMMUNIS? OR IMMUNIZ?)
L15          374 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10(S)(POLYPEPTIDE OR
                 POLYPROTEIN OR PROTEIN OR PEPTIDE)
L16           19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15(S)(POLYNUCLEOTIDE
                 OR NUCLEOTIDE)


L17           19 L9 OR L16

L17  ANSWER 1 OF 19  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:814166  HCAPLUS
TITLE:                    Neisseria meningitidis GNA33 peptides and
                          antibodies thereto in vaccines and diagnosis of
                          meningococcal infecti n
INVENTOR(S):              Granoff, Dan; Moe, Gregory; Rappuoli, Rino
PATENT ASSIGNEE(S):       Chiron Corporation, USA; Children's Hospital
                          Oakland Research Institute
SOURCE:                   PCT Int. Appl., 70 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2002083711      A2   20021024       WO 2002-US11501  20020411
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
             NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
             SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
PRIORITY APPLN. INFO.:                    US 2001-284554P  P  20010417
                                          US 2001-326838P  P  20011003
AB   Mol. mimetics of a surface-exposed epitope on loop 4 of PorA of
     Neisseria meningitidis serogroup B (MenB) P1.2 serosubtype and
     antibodies produced against the same are disclosed. Compns. containing
     such mol. mimetics or the antibodies thereto can be used to prevent
     MenB disease, as well as for diagnosis of MenB infection. The
     mimetics are GNA33 peptides that contain the sequence QTP.
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AU 9939284	A1	19991116	AU 1999-39284	19990420
EP 1071783	A2	20010131	EP 1999-922122	19990420
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002512800	T2	20020508	JP 2000-546017	19990420

PRIORITY APPLN. INFO.: GB 1998-8866 A 19980424
WO 1999-EP2766 W 19990420

AB This invention provides the sequence of the Neisseria meningitidis BASB006 gene, which encodes a protein that has homol. to the Hap protein of Haemophilus influenzae. The invention also relates to the use of an immunogenic fragment, preferably the extracellular domain, of the provided protein in a vaccine. The invention further relates to the use of the provided protein and/or gene in the diagnosis of bacterial infections, especially those of Neisseria.

L17 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:708914 HCAPLUS
DOCUMENT NUMBER: 131:333043
TITLE: Protein and DNA sequences of Neisseria meningitidis BASB013 gene, and uses thereof in vaccine compositions and in assays for the diagnosis of bacterial infections
INVENTOR(S): Ruelle, Jean-louis
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955872	A1	19991104	WO 1999-EP2765	19990420
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326404	AA	19991104	CA 1999-2326404	19990420
AU 9938221	A1	19991116	AU 1999-38221	19990420
EP 1073747	A1	20010207	EP 1999-920767	19990420
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: GB 1998-8734 A 19980423
WO 1999-EP2765 W 19990420

AB This invention provides the sequence of the Neisseria meningitidis BASB013 gene, which encodes a protein that has homol. to the MucD protein of Pseudomonas aeruginosa and to the HtrA serine protease found in many bacteria. The invention also relates to the use of an immunogenic fragment, preferably the extracellular domain, of the provided protein in a vaccine. The invention further relates to the use of the provided protein and/or gene in the diagnosis of bacterial infections, especially those of Neisseria.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:412243 HCAPLUS
DOCUMENT NUMBER: 131:198352
TITLE: Identification and characterization of TspA, a major CD4+ T-cell- and B-cell-stimulating Neisseria-specific antigen
AUTHOR(S): Kizil, Goksel; Todd, Ian; Atta, Mustafa; Borriello, S. Peter; Ait-Tahar, Kamel; Ala'Aldeen, Dlawer A. A.
CORPORATE SOURCE: Meningococcal Research Group, Divisions of Microbiology and Immunology, School of Clinical Laboratory Sciences, University of Nottingham, Nottingham, NG7 2UH, UK
SOURCE: Infection and Immunity (1999), 67(7), 3533-3541
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In search for novel T-cell immunogens involved in protection against invasive meningococcal disease, the authors screened fractionated proteins of Neisseria meningitidis (strain SD, B:15:P1.16) by using peripheral blood mononuclear cells (PBMCs) and specific T-cell lines obtained from normal individuals and patients convalescing from N. meningitidis infection. Proteins of iron-depleted meningococci produced higher PBMC proliferation indexes than proteins of iron-replete organisms, indicating that iron-regulated proteins are T-cell immunogens. Insol. proteins of the iron-depleted cells, which produced better T-cell stimulation than soluble ones, were fractionated by using SDS-polyacrylamide gels and recovered as five fractions (F1 to F5) corresponding to decreasing mol. weight ranges. The proteins were purified (by elution and precipitation) or electroblotted onto nitrocellulose membranes (dissolved and precipitated) before use in further T-cell proliferation assays. One of the fractions (F1), containing high-mol.-mass proteins (>130 kDa), consistently showed the strongest T-cell proliferation responses in all of the T-cell lines examined F1 proteins were subdivided into four smaller fractions (F1A to F1D) which were reexamd. in T-cell proliferation assays, and F1C induced the strongest responses in patients' T-cell lines. Rabbit polyclonal antibodies to F1C components were used to screen a genomic expression library of N. meningitidis. Two major clones (C1 and C24) of recombinant meningococcal DNA were identified and fully sequenced. Sequence anal. showed that C24 (1,874 bp) consisted of a single open reading frame (ORF), which was included in clone C1 (2,778 bp). The strong CD4+ T-cell-stimulating effect of the polypeptide product of this ORF (named TspA) was confirmed, using a patient T-cell line. Immunogenicity for B cells was confirmed by showing that convalescent patients' serum antibodies recognized TspA on Western blots. Addnl. genetic sequence downstream of C24 was obtained from the meningococcal genomic sequence database (Sanger Center), enabling the whole gene of 2,761 bp to be reconstructed. The DNA and deduced amino acid sequence data for tspA failed to show significant homol. to any known gene, except for a corresponding (uncharacterized) gene in Neisseria gonorrhoeae genome sequences, suggesting that tspA is unique to the genus Neisseria. The DNA and

deduced amino acid sequence of the second ORF of clone C1 showed significant homol. to gloA, encoding glyoxalase I enzyme, of Salmonella typhimurium and Escherichia coli. Thus, the authors have identified a novel neisserial protein (TspA) which proved to be a strong CD4+ T-cell- and B-cell-stimulating immunogen with potential as a possible vaccine candidate.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:139967 HCAPLUS
DOCUMENT NUMBER: 130:194221
TITLE: Lactoferrin binding protein B of Neisseria meningitidis for use as an antigen in meningitis vaccines
INVENTOR(S): Pettersson-Fernholm, Annika Margareta; Tommassen, Johannes Petrus Maria
PATENT ASSIGNEE(S): University of Utrecht, Neth.; Technology Foundation (Technologiestichting Stw)
SOURCE: PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9909176	A1	19990225	WO 1998-EP5117	19980810
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2301332	AA	19990225	CA 1998-2301332	19980810
AU 9892613	A1	19990308	AU 1998-92613	19980810
AU 744733	B2	20020228		
EP 1003874	A1	20000531	EP 1998-945224	19980810
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
BR 9811907	A	20000815	BR 1998-11907	19980810
JP 2001514894	T2	20010918	JP 2000-509840	19980810
ZA 9807303	A	20000214	ZA 1998-7303	19980814
NO 2000000731	A	20000331	NO 2000-731	20000214

PRIORITY APPLN. INFO.:
GB 1997-17423 A 19970815
GB 1998-2544 A 19980205
WO 1998-EP5117 W 19980810

AB A second lactoferrin-binding protein, LbpB, of Neisseria meningitis is identified as an outer membrane protein that may be useful in meningitis vaccines and the lpbB gene encoding it is cloned. The protein plays a role in the iron-dependent and lactoferrin neutralizing processes of pathogenesis and so may be a useful target for vaccines. Mutation of the gene lowered levels of lactoferrin

binding by Neisseria although the effect was less than that from mutation in the gene for lactoferrin-binding protein A. Inactivation of both genes largely eliminated lactoferrin binding. Convalescent serum from eight of twelve meningococcal meningitis patients reacted with native or denatured LbpB to some extent. Mice inoculated with the protein mounted a strong response to it and showed cross protection against heterologous strains of N. meningitidis. Antibody also reacted strongly with a protein of Moraxella catarrhalis.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:246716 HCAPLUS
DOCUMENT NUMBER: 126:329201
TITLE: Highly conserved Neisseria meningitidis surface protein confers protection against experimental infection
AUTHOR(S): Martin, Denis; Cadieux, Nathalie; Hamel, Josee; Brodeur, Bernard R.
CORPORATE SOURCE: Unite de Recherche en Vaccinologie, Centre de Recherche en Infectiologie, Centre Hospitalier Universitaire de Quebec, Ste-Foy, QC, G1V 4G2, Can.
SOURCE: Journal of Experimental Medicine (1997), 185(7), 1173-1183
CODEN: JEMEAV; ISSN: 0022-1007
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new surface protein, named NspA, which is distinct from the previously described Neisseria meningitidis outer membrane proteins was identified. An NspA-specific mAb, named Me-1, reacted with 99% of the meningococcal strains tested indicating that the epitope recognized by this particular mAb is widely distributed and highly conserved. Western immunoblotting expts. indicated that mAb Me-1 is directed against a protein band with an approx. mol. mass of 22,000, but also recognized a minor protein band with an approx. mol. mass of 18,000. This mAb exhibited bactericidal activity against four meningococcal strains, two isolates of serogroup B, and one isolate from each serogroup A and C, and passively protected mice against an exptl. infection. To further characterize the NspA protein and to evaluate the protective potential of recombinant NspA protein, the nspA gene was identified and cloned into a low copy expression vector. Nucleotide sequencing of the meningococcal insert revealed an ORF of 525 nucleotides coding for a polypeptide of 174 amino acid residues, with a predicted mol. weight of 18,404 and a isoelec. point of 9.93. Three injections of either 10 or 20 μg of the affinity-purified recombinant NspA protein efficiently protected 80% of the mice against a meningococcal deadly challenge comparatively to the 20% observed in the control groups. The fact that the NspA protein can elicit the production of bactericidal and protective antibodies emphasize its potential as a vaccine candidate.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 10:03:12 ON 14 NOV 2002)
L18 1 S L9

L19 61 S L16
L20 62 S L18 OR L19
L21 31 DUP REM L20 (31 DUPLICATES REMOVED)

L21 ANSWER 1 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-463368 [49] WPIDS
DOC. NO. CPI: C2002-131769
TITLE: Analyzing gene expression in a microorganism, useful for identifying pathogens (e.g. E. coli or Vibrio spp.) or anti-infective agents by exposing the microorganism to a lipid bilayer not associated with protein or RNA synthesis.
DERWENT CLASS: B04 D16
INVENTOR(S): FRANKEL, G M; KNUTTON, S
PATENT ASSIGNEE(S): (IMCO-N) IMPERIAL COLLEGE INNOVATIONS LTD
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002034952	A2	20020502	(200249)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001095767	A	20020506	(200257)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002034952	A2	WO 2001-GB4684	20011022
AU 2001095767	A	AU 2001-95767	20011022

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001095767	A Based on	WO 200234952

PRIORITY APPLN. INFO: GB 2000-26459 20001028
AN 2002-463368 [49] WPIDS
AB WO 200234952 A UPAB: 20020802
NOVELTY - Analyzing gene expression occurring in a microorganism before, during or after contact with or adhesion of the microorganism to a lipid bilayer comprises exposing the microorganism to a lipid bilayer that is substantially not associated with protein or RNA synthetic machinery.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (M1) of analyzing the interaction between a microorganism and a lipid bilayer by employing the method above and determining whether any microorganism component has been transferred to the lipid bilayer;

(2) a kit comprising the lipid bilayer, and a nucleic acid

microarray and/or protein microarray;

(3) a method (M2) of identifying a gene of a microorganism, the expression of which differs in the presence or absence of contact and/or adhesion of the microorganism to a lipid bilayer by:

(a) employing (M1);

(b) comparing the expression of at least one gene inn the presence or absence of the contact and/or adhesion; and

(c) selecting a gene whose expression is different in the presence or absence of contact and/or adhesion of the microbe to a lipid bilayer;

(4) a method of selecting a target for development or identification of an anti-infective agent or vaccine, by performing (M2), and selecting as a target a product of a gene whose expression is identified as differing in the presence and absence of contact and/or adhesion;

(5) a microorganism in which a gene (identified in M2) is mutated or overexpressed;

(6) a gene identified in (M2);

(7) a polypeptide encoded by the identified gene;

(8) a method (M3) of identifying a compound that reduces the ability of a microorganism to adhere to a host cell by selecting a compound that interferes with the function of the gene or the polypeptide cited above;

(9) a compound identified or identifiable by (M3);

(10) a molecule that selectively interacts with, and substantially inhibits the function of the gene or its nucleic acid product, or the polypeptide;

(11) a method of treating a host which has, or is susceptible to, an infection with a microorganism, by administering the molecule, compound, polypeptide or polynucleotide cited above, where the gene is present in the microorganism or is a close relative of the microorganism;

(12) a pharmaceutical composition having the molecule, compound, polynucleotide, polypeptide or microorganism cited above, and a pharmaceutical carrier; and

(13) a method of detecting and/or characterizing a microorganism (e.g. bacteria) by determining the presence/absence and/or expression of the gene (identified in M2) in a sample.

ACTIVITY - Antibacterial; Antifungal. No biodata is given.

MECHANISM OF ACTION - Vaccine.

USE - The method is particularly useful for identifying a bacterium or a fungus that is pathogenic to animals. The bacterium may be an Escherichia coli (e.g. enterohemorrhagic E. coli (EHEC) or enteropathogenic E. coli (EPEC)). In particular, the bacterium is EPECC strain E2348/69 or EHEC strain 85-170 (O157:H7). The bacterium may also be Helicobacter pylori, Bordetella pertussis, Campylobacter jejuni, Clostridium botulinum, Haemophilus ducreyi, H. influenzae, Klebsiella pneumoniae, Legionella pneumophila, Listeria spp., Neisseria gonorrhoeae, **N. meningitidis**, Pseudomonas spp., Salmonella spp., Shigella spp., Staphylococcus aureus, Streptococcus pyogenes, S. pneumoniae, Vibrio spp. or Yersinia pestis. The fungus may be Aspergillus spp., Cryptococcus neoformans or Histoplasma capsulatum. The compound identified by M3 is useful for treating infection of a host organism with the microorganism. The **polypeptide** or **polynucleotide** encoding the **polypeptide**, or microorganism expressing the **polypeptide** is useful for manufacturing a medicament for **vaccination** of a host, which has or is susceptible to, an

infection with a microorganism, where the gene is present in the microorganism or is a close relative of the microorganism. A molecule that selectively interacts with, and substantially inhibits the function of the gene or its nucleic acid product, or the **polypeptide**, the compound cited, the **polypeptide** or the **polynucleotide** encoding the **polypeptide** is useful in medicine (all claimed). The method is also useful in screening assays to identify anti-infective agents (e.g. antibacterial agents or **vaccines**) and their targets.
Dwg.0/8

L21 ANSWER 2 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-435299 [46] WPIDS
DOC. NO. CPI: C2002-123609
TITLE: Novel vaccine comprising a bacterium containing DNA sequences encoding site-specific recombinase, a plasmid comprising a recognition element for recombinase and a DNA sequence encoding a heterologous polypeptide.
DERWENT CLASS: B04 D16
INVENTOR(S): STEPHENS, J C; TURNER, A K
PATENT ASSIGNEE(S): (ACAM-N) ACAMBIS RES LTD
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002028423	A1	20020411	(200246)*	EN	59

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

PATENT NO	KIND	DATE
AU 2001092051	A	20020415 (200254)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002028423	A1	WO 2001-GB4382	20011002
AU 2001092051	A	AU 2001-92051	20011002

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001092051	A	Based on	WO 200228423

PRIORITY APPLN. INFO: GB 2000-24203 20001003
AN 2002-435299 [46] WPIDS
AB WO 200228423 A UPAB: 20020722
NOVELTY - A vaccine (I) comprising a bacterium containing a DNA sequence encoding a site-specific recombinase, a plasmid comprising a recognition element for the recombinase and a DNA sequence encoding a heterologous polypeptide, is new.
ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine.
No supporting data given.
USE - (I) Is useful for vaccinating a human or animal, for the manufacture of a medicament for vaccinating a human or animal, and for raising an immune response in a human or animal host (claimed).
ADVANTAGE - The modified plasmid is significantly more stable when expressed in live attenuated bacteria grown in the absence of antibiotic selection than the parental plasmid it was derived from. The plasmid containing the cassette was also found to be more stable than the parental plasmid when both were expressed in attenuated bacteria and antibiotic selection applied.
Dwg.0/10

L21 ANSWER 3 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-041720 [05] WPIDS
DOC. NO. CPI: C2002-011941
TITLE: New **polypeptide** useful as **vaccine** for **immunizing** animals against bacterial infections, is encoded by genes from **Neisseria meningitidis** and **polynucleotides** for obtaining microorganisms having reduced ability to uptake DNA.
DERWENT CLASS: B04 D16
INVENTOR(S): TANG, C
PATENT ASSIGNEE(S): (MICR-N) MICROSCIENCE LTD
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001087939	A2	20011122	(200205)*	EN	55

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001058579 A 20011126 (200222)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001087939	A2	WO 2001-GB2247	20010518
AU 2001058579	A	AU 2001-58579	20010518

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001058579	A Based on	WO 200187939

PRIORITY APPLN. INFO: GB 2000-12079 20000518
AN 2002-041720 [05] WPIDS
AB WO 200187939 A UPAB: 20020123
NOVELTY - A peptide (I) encoded by an operon having a sequence (S1)

of 2040, 1257, 599, 1773, 1572, 1185, 804, 2391, 252, 789 or 132 base pairs as given in the specification, or a related molecule having at least 40% sequence similarity or identity at the peptide level or nucleotide level in a Gram-negative bacterium, or their functional fragment for therapeutic or diagnostic use, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a transformation deficient microorganism (II) comprising a mutation that disrupts the expression of a gene (III) comprising a nucleotide sequence (S1) or related molecule having at least 40% sequence identity, for therapeutic use;

(2) a vaccine (VAC) comprising (II);

(3) a polynucleotide (IV) encoding (I), or its complement, for therapeutic or diagnostic use; and

(4) an antibody raised against (I).

ACTIVITY - Antiinflammatory; Antibiotic; Antibacterial. No biological data is provided.

MECHANISM OF ACTION - Vaccine (claimed). No biological data is given.

USE - (I), VAC, (II) and (IV) are useful for manufacture of medicament for use in treatment or prevention of a condition associated with infection by N. meningitidis or Gram-negative bacteria e.g. meningitis for veterinary treatment (claimed). (IV) is useful for searching related genes or peptides in other microorganisms. (I) is useful for preparation of antibodies which is used in passive immunization or in diagnostic applications. (III) is useful in generating vaccine strains that cannot take up exogenous DNA and as a target for antimicrobials. (II) is useful as a carrier system for the delivery of heterologous antigens, therapeutic proteins or nucleic acids in vivo. (I) and (IV) are useful in screening drugs.

Dwg.0/0

L21 ANSWER 4 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-488774 [53] WPIDS
CROSS REFERENCE: 2001-457721 [49]
DOC. NO. CPI: C2001-146735
TITLE: New NhhA surface antigen **polypeptides** and **polynucleotides** from **Neisseria meningitidis**, useful in producing **vaccines** for treating or preventing broad spectrum of **Neisseria meningitidis**.
DERWENT CLASS: B04 D16
INVENTOR(S): JENNINGS, M P; PEAK, I R A
PATENT ASSIGNEE(S): (UYQU) UNIV QUEENSLAND
COUNTRY COUNT: 93
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001055182	A1	20010802	(200153)*	EN	91

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU

ZA ZW
AU 2001028181 A 20010807 (200174)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001055182 A1		WO 2001-AU69	20010125
AU 2001028181 A		AU 2001-28181	20010125

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001028181 A	Based on	WO 200155182

PRIORITY APPLN. INFO: US 2000-177917P 20000125
AN 2001-488774 [53] WPIDS
CR 2001-457721 [49]
AB WO 200155182 A UPAB: 20011217
NOVELTY - An isolated protein comprising twelve or more contiguous conserved amino acids of an NhhA polypeptide, is new. The isolated protein is not a wild-type NhhA polypeptide.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated protein comprising a sequence of residues 1-50, 109-120, 135-198, 221-239, or 249-604 of a 604 residue amino acid sequence, fully defined in the specification, where the isolated protein is not a wild type NhhA polypeptide;

(2) an allelic variant, fragment or derivative of the isolated protein;

(3) a pharmaceutical composition comprising one or more isolated proteins;

(4) an isolated nucleic acid, encoding the novel polypeptide, or the polypeptide of (1), or (2);

(5) an expression vector which includes the isolated nucleic acid of (4); and

(6) a host cell transformed with the expression vector of (3).

ACTIVITY - Antibacterial.

No biological data is given.

MECHANISM OF ACTION - Vaccine.

USE - The proteins are useful in diagnostics, therapeutic and prophylactic vaccines against a broader spectrum of N. meningitidis, and in designing and/or screening of medicaments.

ADVANTAGE - The proteins as a vaccine can effectively immunize against a broader spectrum of N. meningitidis strains than would be expected from a corresponding wild-type surface antigen.

Dwg.0/14

L21 ANSWER 5 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-138654 [14] WPIDS
CROSS REFERENCE: 2002-188688 [24]
DOC. NO. CPI: C2001-041027
TITLE: New isolated polynucleotide useful for outer membrane vesicle preparation from Gram-negative bacterial strain for vaccination of microbial infections.
DERWENT CLASS: B04 D16

INVENTOR(S): BERTHET, F J; DALEMANS, W L J; DENOEL, P; DEQUESNE, G; FERON, C; LOBET, Y; POOLMAN, J; THIRY, G; THONNARD, J; VOET, P; DALEMANS, W L; LHONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009350	A2	20010208	(200114)*	EN	127
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000068336	A	20010219	(200129)		
NO 2002000506	A	20020402	(200235)		
BR 2000012974	A	20020507	(200238)		
CZ 2002000403	A3	20020515	(200241)		
EP 1208214	A2	20020529	(200243)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
KR 2002027514	A	20020413	(200267)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009350	A2	WO 2000-EP7424	20000731
AU 2000068336	A	AU 2000-68336	20000731
NO 2002000506	A	WO 2000-EP7424	20000731
		NO 2002-506	20020131
BR 2000012974	A	BR 2000-12974	20000731
		WO 2000-EP7424	20000731
CZ 2002000403	A3	WO 2000-EP7424	20000731
		CZ 2002-403	20000731
EP 1208214	A2	EP 2000-956369	20000731
		WO 2000-EP7424	20000731
KR 2002027514	A	KR 2002-701441	20020201

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000068336	A	Based on	WO 200109350
BR 2000012974	A	Based on	WO 200109350
CZ 2002000403	A3	Based on	WO 200109350
EP 1208214	A2	Based on	WO 200109350

PRIORITY APPLN. INFO: GB 1999-18319 19990803
AN 2001-138654 [14] WPIDS
CR 2002-188688 [24]
AB WO 200109350 A UPAB: 20021018
NOVELTY - An isolated polynucleotide sequence which hybridizes under highly stringent conditions to at least a 30 nucleotide portion of 80 sequences described in the specification.

Searcher : Shears 308-4994

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) a genetically-engineered outer membrane vesicle (bleb) preparation from a Gram-negative bacterial strain characterized in that the preparation is obtainable by employing a process comprising:

(a) introducing a heterologous gene, optionally controlled by a strong promoter sequence, into the chromosome by homologous recombination; and

(b) making blebs from the strain;

(2) a vaccine comprising a bleb preparation and a pharmaceutically acceptable excipient;

(3) a vector suitable for performing recombination events;

(4) a modified Gram-negative bacterial strain from which the bleb preparation is made;

(5) an immuno-protective and non-toxic Gram-negative bleb, ghost, or killed whole cell vaccine suitable for paediatric use.

ACTIVITY - Antiviral; Antibacterial; Antifungal.

Animals were immunized three times with 5 micro g of the different OMVs absorbed on Al(OH)3 on days 0, 14, and 28. Bleedings were done on days 28 and 35, and they were challenged on day 35. The challenge dose was 20 X LD50 (approx. 10 to the power of 7 CFU/mouse). Mortality rate was monitored for 7 days after challenge.

OMVs injected were:

Group1: Cps-, PorA+
Group2: Cps-, PorA-
Group3: Cps-, PorA-, NspA+
Group4: Cps-, PorA-, Omp85+
Group5: Cps-, PorA-, Hsf+

24 hours after the challenge, there was 100% mortality in the negative control group, while mice immunized with the 5 different OMVs preparations were still alive. Sickness was also monitored during the 7 days and the mice immunized with the NSPA over-expressed blebs appeared to be less sick than the other groups. PorA present in PorA+ blebs is likely to confer extensive protection against infection by the homologous strain. However, protection induced by PorA-up-regulated blebs is likely to be due at least to some extent, to the presence of increased amount of NspA, OMP85 or Hsf.

MECHANISM OF ACTION - Vaccine.

USE - The claimed polynucleotide sequence is used in performing a homologous recombination event within 1000 base pairs upstream of a Gram-negative bacterial chromosomal gene in order to either increase or decrease expression of the gene. The bleb preparation is useful in the manufacture of a medicament for immunizing a human host against a disease caused by infection of one or more of the following: Neisseria meningitidis, Neisseria gonorrhoeae, Haemophilus influenza, Moraxella catarrhalis, Pseudomonas aeruginosa, Chlamydia trachomatis, and Chlamydia pneumonia. The invention is useful for immunizing a human host against the diseases caused by the above. The invention also provides immunization against the influenza virus. Immuno-protective and non-toxic Gram-negative bleb, ghost, or killed whole cell vaccines are useful for paediatric use (all claimed).

ADVANTAGE - The vaccine is more immunogenic, less toxic, and safer.

Dwg.0/17

L21 ANSWER 6 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-082916 [10] WPIDS
DOC. NO. NON-CPI: N2001-063334
DOC. NO. CPI: C2001-024200
TITLE: Immunogenic polypeptides derived from Neisseria meningitidis and the nucleic acids that encode them, useful for diagnosing and vaccinating against Neisseria infections e.g. bacteremia and meningitis.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): NASSIF, X; TINSLEY, C; ACHTMAN, M; KLEE, S; MERKER, P
PATENT ASSIGNEE(S): (INRM) INSERM INST NAT SANTE & RECH MEDICALE; (PLAC) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1069133	A1	20010117	(200110)*	EN	232
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
WO 2001004150	A2	20010118	(200110)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000068254	A	20010130	(200127)		
EP 1194446	A2	20020410	(200232)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1069133	A1	EP 1999-401764	19990713
WO 2001004150	A2	WO 2000-EP6943	20000705
AU 2000068254	A	AU 2000-68254	20000705
EP 1194446	A2	EP 2000-956222	20000705
		WO 2000-EP6943	20000705

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000068254	A	Based on	WO 200104150
EP 1194446	A2	Based on	WO 200104150

PRIORITY APPLN. INFO: EP 1999-401764 19990713
AN 2001-082916 [10] WPIDS
AB EP 1069133 A UPAB: 20010220
NOVELTY - Immunologically active polypeptides (I) derived from the Gram negative bacteria Neisseria meningitidis, and the nucleic acids (II) that encode them, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) an isolated polypeptide (I) comprising an amino acid sequence that has at least 70% identity to 44 defined amino acid sequences ((A1)-(A44)) given in the specification;

(2) an immunogenic fragment of (I) which comprises (A1)-(A44);

(3) an isolated polynucleotide (II) comprising a nucleotide sequence encoding (I) (which has at least 70% to (A1)-(A44) over its entire length), or a sequence complementary to (II);

(4) an expression vector (III) or a recombinant live microorganism comprising (II);

(5) a host cell (IV) comprising (III), or a membrane of (IV), that expresses a polypeptide comprising an amino acid sequence with at least 70% identity to (A1)-(A44);

(6) a process (V) for producing a polypeptide comprising an amino acid sequence with at least 70% identity to (A1)-(A44), comprising culturing the host cell (IV) under suitable conditions for expression of the polypeptide and recovering the polypeptide from the culture medium;

(7) a process (VI) for expressing the polynucleotide (II), comprising transforming a host cell with an expression vector comprising (II) and culturing the host cell under conditions suitable for expression of the polypeptide;

(8) vaccine compositions (VII) comprising (I) and/or (II);

(9) antibody (VIII) immuno-specific for (I); and

(10) a method for diagnosing a Neisseria infection, comprising identifying (I) or (VIII) in a sample from the subject animal.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Rabbit antiserum produced in response to vaccination with the polypeptides killed 65% of parenterally administered meningococcus (strain 8013) with in 20 minutes of contact and all of the bacteria within 60 minutes. Pre-immune serum (taken prior to immunization) was found to have killed no bacteria after 20 minutes and only half after 60 minutes.

USE - The nucleic acids and the **polypeptides** they encode may be used to **vaccinate** subjects against infection by **Neisseria meningitidis** bacteria according to standard methodologies. The antibodies produced in response to the **polypeptides** and/or **polynucleotides** may also be used to treat **N. meningitidis** infections or as diagnostic reagents in immunoassays to detect infections (claimed). **N. meningitidis** is a pathogen involved in, for example, bacteremia and meningitis.

Dwg.0/50

L21 ANSWER 7 OF 31 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER:	2000-602119 [57] WPIDS
DOC. NO. NON-CPI:	N2000-445497
DOC. NO. CPI:	C2000-180246
TITLE:	Novel polypeptides designated BASB 082, 083, 091, 092, and 101 derived from meningococcus bacterium useful for producing vaccines against infections and in diagnostic assays.
DERWENT CLASS:	B04 D16 S03
INVENTOR(S):	DEFRENNE, C; DELMELLE, C; RUELLE, J
PATENT ASSIGNEE(S):	(SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT:	91

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000055327	A2	20000921	(200057)*	EN	108

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000031646	A	20001004	(200101)	
EP 1163343	A2	20011219	(200206)	EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000055327	A2	WO 2000-EP1955	20000307
AU 2000031646	A	AU 2000-31646	20000307
EP 1163343	A2	EP 2000-909329	20000307
		WO 2000-EP1955	20000307

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000031646	A	Based on	WO 200055327
EP 1163343	A2	Based on	WO 200055327

PRIORITY APPLN. INFO: GB 1999-10710 19990507; GB 1999-5815 19990312; GB 1999-9094 19990421; GB 1999-9503 19990423; GB 1999-9787 19990428

AN 2000-602119 [57] WPIDS

AB WO 200055327 A UPAB: 20001109

NOVELTY - An isolated polypeptide (I) which has 85 % identity to a Neisseria meningitidis derived BASB 082, 083, 091, 092, or 101 protein having a 758 (S2), 703 (S4), 125 (S6), 287 (S8), and 321 (S10) amino acid sequence respectively, all fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of (I);

(2) an isolated polynucleotide (II), comprising a nucleotide sequence which encodes (I) that has 85 % identity to (S2), (S4), (S6), (S8) or (S10) over the entire length of the polypeptide, or a nucleotide sequence that has 85 % identity to a sequence encoding a polypeptide with (S2), (S4), (S6), (S8) or (S10), or a nucleotide sequence which has 85 % identity to a 2277 (S1), 2112 (S3), 378 (S5), 864 (S7), or 966 (S9) nucleotide sequence, all fully defined in the specification, or a sequence complementary to any of the polynucleotides;

(3) an expression vector (III) or a recombinant live microorganism comprising (II);

(4) a host cell (IV) comprising (III) or a subcellular fraction or a membrane of the host cell expressing (I);

(5) preparation of (I), by culturing (IV) under optimum conditions for the production of the polypeptide which is then recovered from the culture medium;

(6) process for expressing (II) which involves transforming a host cell with the expression vector comprising the polynucleotides and culturing the host cell under expression conditions;

(7) a vaccine composition (V) comprising (I) or (II);

(8) an antibody (VI) immunospecific for (I) or its immunological fragment;

(9) use of a composition comprising (I) or (II) in the preparation of a medicament for use in generating an immune response in an animal; and

(10) a therapeutic composition useful in treating humans with N. meningitidis disease comprising (VI).

ACTIVITY - Antibacterial; antiinflammatory. No biological data is given.

MECHANISM OF ACTION - Vaccine; gene therapy.

USE - (I) and (VI) are useful as diagnostic reagents and for diagnosing **N. meningitidis** infection which involves identifying (I) or (VI) in a biological sample from an animal suspected of having an inspection (claimed). The immunogenic fragments of (I) are useful for producing antibodies. The **polynucleotides** may be used as hybridization probe for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB082, BASB083, BASB091, BASB092 or BASB101 **polypeptides** and to isolate cDNA and genomic clones of other genes that have a high identity particularly high sequence identity to BASB082, BASB083, BASB091, BASB092 or BASB101 genes. The **vaccine** compositions are useful for inducing an immunological response in humans. The **polynucleotides** encoding BASB082, BASB083, BASB091, BASB092 or BASB101 **polypeptides** are useful in gene therapy to induce an immunological response. The **polypeptides** are useful for treating upper respiratory tract infection, invasive bacterial diseases, such as bacteremia and meningitis.

Dwg.0/0

L21 ANSWER 8 OF 31 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 2000-505978 [45] WPIDS
DOC. NO. NON-CPI: N2000-374147
DOC. NO. CPI: C2000-151912
TITLE: New isolated polypeptide from Neisseria meningitidis is useful for detection and treatment of N. meningitidis infection.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000044904	A1	20000803	(200045)*	EN	77

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU

SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000032768 A 20000818 (200057)
EP 1151107 A1 20011107 (200168) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000044904	A1	WO 2000-EP561	20000125
AU 2000032768	A	AU 2000-32768	20000125
EP 1151107	A1	EP 2000-910610	20000125
		WO 2000-EP561	20000125

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000032768	A	Based on	WO 200044904
EP 1151107	A1	Based on	WO 200044904

PRIORITY APPLN. INFO: GB 1999-2070 19990129
AN 2000-505978 [45] WPIDS
AB WO 200044904 A UPAB: 20000918
NOVELTY - An isolated polypeptide (I) comprising an amino acid sequence at least 85% identical to the 112 amino acid sequence provided in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of (I);

(2) an isolated polynucleotide (II) encoding (I);

(3) an expression vector (III) or recombinant live microorganism comprising (II);

(4) expressing (I) comprising transforming a host cell with (III);

(5) a vaccine comprising (I); and

(6) an antibody (IV) immunospecific for (I).

ACTIVITY - Antibacterial; immunostimulant.

Partially purified recombinant BASB059 protein expressed in Escherichia coli was injected three times into Balb/C mice on days 0, 14 and 28 (10 animals/group). Animals were injected by the subcutaneous route with 5 micro g of antigen either adsorbed on 100 micro g of AlPO4 (sic) or formulated in SBAS2 emulsion (SB62 emulsion containing 5 micro g MPL and 5 micro g QS21 per dose). Control mice were injected with the SBAS2 emulsion only. The mice were bled on days 28 and 35 in order to detect specific anti-BASB059 antibodies. Antibodies were detected by enzyme linked immunosorbant assay. Specific anti-BASB059 antibodies were detected with both formulations, but not in the bleed from the control mice.

MECHANISM OF ACTION - Vaccine.

No supporting biological data is given.

USE - (I) and (IV) can be used for diagnosis of Neisseria meningitidis infection. (I) can also be used to generate an immune response. The vaccine can be used to treat N. meningitidis infection.

Dwg.0/4

L21 ANSWER 9 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-505839 [45] WPIDS
DOC. NO. CPI: C2000-151820
TITLE: Neisseria meningitidis BASB047, BASB054, BASB068, and BASB069 proteins, useful for treating N. meningitidis infections, bacteremia, and meningitis.
DERWENT CLASS: B04 D16
INVENTOR(S): RUELLE, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK) SMITHKLINE BEECHAM BIOLOGICS SA
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000043519	A2	20000727	(200045)*	EN	103
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000021097	A	20000807	(200055)		
EP 1149164	A2	20011031	(200172)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000043519	A2	WO 2000-EP428	20000119
AU 2000021097	A	AU 2000-21097	20000119
EP 1149164	A2	EP 2000-901121	20000119
		WO 2000-EP428	20000119

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000021097	A	Based on	WO 200043519
EP 1149164	A2	Based on	WO 200043519

PRIORITY APPLN. INFO: GB 1999-3535 19990216; GB 1999-1368 19990122; GB 1999-1944 19990128; GB 1999-2086 19990129; GB 1999-3417 19990215

AN 2000-505839 [45] WPIDS

AB WO 200043519 A UPAB: 20000918
NOVELTY - An isolated polypeptide comprising an amino acid sequence which has at least 85% identity to a 400, 802, 671, or 691 residue Neisseria meningitidis BASB047, BASB054, BASB068, and BASB069 amino acid sequence (I-IV), all fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide having any of (I-IV), or its immunogenic fragment;

(2) n isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85 % identity to any of (I-IV), or its complement;

(3) an isolated polynucleotide comprising a nucleotide sequence that has at least 85% identity to a nucleotide sequence encoding any of (I-IV), or its complement;

(4) an isolated polynucleotide which comprises a nucleotide sequence which has at least 85 % identity to the 1203, 2409, 2016, or 2076 base pair DNA sequences (V-VIII), all fully defined in the specification over their entire length, or its complement;

(5) an isolated polynucleotide comprising a nucleotide sequence encoding any of (I-IV);

(6) an isolated polynucleotide comprising any of (V-VIII);

(7) an isolated polynucleotide comprising a nucleotide sequence encoding any of (I-IV), obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having any of (V-VIII), or a fragment of them;

(8) an expression vector or recombinant live microorganism comprising an isolated polynucleotide of (3)-(8);

(9) a host cell comprising the expression vector of (9) or a subcellular fraction or a membrane of the host cell expressing an isolated polypeptide comprising an amino acid sequence that has at least 85 % identity to any of (I-IV);

(10) a process for producing a polypeptide comprising an amino acid sequence that has at least 85 % identity to any of (I-IV), comprising culturing a host cell of (10) under expression conditions, and recovering the polypeptide from the culture medium;

(11) a process for expressing a polynucleotide of (3)-(8) comprising transforming a host cell with the expression vector, comprising at least one of the polynucleotides and culturing the host cell under expression conditions;

(12) a vaccine composition comprising the novel peptide, or the peptide of (1), and a carrier;

(13) a vaccine composition, comprising the polynucleotide of (3)-(8) and a carrier;

(14) an antibody immunospecific for the novel polypeptide, or the polypeptide of (1), or their immunological fragments;

(15) diagnosing a Neisseria meningitidis infection, comprising identifying a the novel polypeptide, the polypeptide of (1), or an antibody that is immunospecific for the polypeptide, present within a biological sample from an animal suspected of having such an infection; and

(16) a therapeutic composition useful in treating humans with Neisseria meningitidis disease comprising at least one antibody of (14), and a carrier.

ACTIVITY - Antibacterial; antiinflammatory. No biological data is given.

MECHANISM OF ACTION - Vaccine.

USE - The **polynucleotide** sequence can be used to create a vector to transform a host cell. The host cell can be used to produce the **polypeptide**. The **polynucleotide** and **polypeptide** can be used in **vaccine** compositions. The **polynucleotide**, **polypeptide**, and the antibody directed against the **polypeptide** can be used in compositions for preparation of medicaments. The antibodies can also be used in a composition for treating humans with **Neisseria meningitidis** disease (all claimed). The disease that can be treated include upper respiratory tract

infection, and invasive bacterial diseases such as bacteremia and meningitis. The nucleic acid sequences can be used as probes in the diagnosis of **Neisseria meningitidis** disease.
Dwg.0/0

L21 ANSWER 10 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-476199 [41] WPIDS
DOC. NO. NON-CPI: N2000-355239
DOC. NO. CPI: C2000-142844
TITLE: Isolated BASB055 **polypeptides**, **polynucleotides**, and antibodies, the **polypeptides** and **polynucleotides** are useful as **vaccines** for treating and diagnosing a microbial infection such as a **Neisseria meningitidis** infection.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000043517	A1	20000727	(200041)*	EN	77

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000024393 A 20000807 (200055)
EP 1149165 A1 20011031 (200172) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CN 1344322 A 20020410 (200249)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000043517	A1	WO 2000-EP425	20000119
AU 2000024393	A	AU 2000-24393	20000119
EP 1149165	A1	EP 2000-902623	20000119
		WO 2000-EP425	20000119
CN 1344322	A	CN 2000-805306	20000119

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000024393	A	Based on	WO 200043517
EP 1149165	A1	Based on	WO 200043517

PRIORITY APPLN. INFO: GB 1999-2069 19990129; GB 1999-1462 19990122
AN 2000-476199 [41] WPIDS
AB WO 200043517 A UPAB: 20000831
NOVELTY - An isolated BASB055 polypeptide comprising a defined 412

amino acid sequence (P1) (given in the specification) or a sequence with at least 80% homology to P1, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated BASB055 polynucleotide (N1) comprising a defined 1239 base pair (bp) sequence (given in the specification) encoding P1;

(2) an expression vector or a recombinant live microorganism comprising N1;

(3) a process for expressing N1 comprising transforming and culturing a host cell with the vector of (2);

(4) a vaccine composition comprising P1 or N1;

(5) an antibody immunospecific for P1; and

(6) a method (M1) for diagnosing a Neisseria meningitidis infection, comprising identifying P1, or an antibody to it, in a sample obtained from an animal suspected of having the infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Partially purified recombinant BASB055 protein expressed in Escherichia coli was injected three times in Balb/C mice on days 0, 14 and 28 (10 animals/group) of a trial. Animals were injected by the subcutaneous route with 5 micro g of antigen in two different formulations, either adsorbed on 100 micro g AIPO4 or formulated in SBAS2 emulsion. A negative control group consisting of mice immunized with the SBAS2 emulsion only was also added in the experiment. Mice were bled on days 28 and 35 in order to detect specific anti-BASB055 antibodies. Specific anti-BASB055 antibodies were measured by enzyme linked immunosorbent assay (ELISA) on partially purified BASB055 protein as well as on E. coli proteins. Antibody responses were also evaluated by western-blotting when tested against different Neisseria meningitidis B strains. Pooled sera from both formulations were tested in these assays. Results indicated that the antibody response was good, while the anti-E. coli antibody response, which was clearly positive, was much lower than the specific BASB055 response. The AIPO4 formulation induced the highest antibody levels. Western-blots confirmed that the BASB protein was well recognized at the expected molecular weight of 50 kilodaltons (kDa) by immunized mice sera.

USE - The BASB055 polypeptides and polynucleotides are useful for diagnosing and treating microbial infections such as a Neisseria meningitidis infection.

Dwg.0/5

L21 ANSWER 11 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-476062 [41] WPIDS
DOC. NO. CPI: C2000-142797
TITLE: New Neisseria meningitidis polypeptide useful for diagnosis of Neisseria infection and for development of vaccines against such infection.
DERWENT CLASS: B04 D16
INVENTOR(S): RUELLE, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000042193	A1	20000720	(200041)*	EN	92

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000021074 A 20000801 (200054)
EP 1144643 A1 20011017 (200169) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000042193	A1	WO 2000-EP137	20000110
AU 2000021074	A	AU 2000-21074	20000110
EP 1144643	A1	EP 2000-901085	20000110
		WO 2000-EP137	20000110

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000021074	A	Based on	WO 200042193
EP 1144643	A1	Based on	WO 2000421_3

PRIORITY APPLN. INFO: GB 1999-1903 19990128; GB 1999-959 19990115

AN 2000-476062 [41] WPIDS

AB WO 200042193 A UPAB: 20000831
NOVELTY - An isolated polypeptide (I) comprising a fully defined 722 or 691 amino acid (aa) sequence, or a sequence with at least 85% identity to the fully defined 722 or 691 aa sequence, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide (II) encoding (I) or its antisense sequence, comprising the fully defined 2169 or 2078 base pair (bp) sequence or a sequence with at least 85% identity to the fully defined 2169 or 2078 bp sequence;

(2) an immunogenic fragment (III) of (I) in which its immunogenic activity is the same as that of (I);

(3) an expression vector (IV) or a recombinant live microorganism (V) comprising (II);

(4) a host cell (VI) comprising (IV) or a subcellular fraction or membrane of (VI) expressing (I);

(5) expressing (II) and producing (I);

(6) a vaccine (VII) comprising (I) or (II) with a carrier; and

(7) an antibody immunospecific for (I) or (III).

ACTIVITY - Immunostimulant; antibacterial.

MECHANISM OF ACTION - Vaccine.

USE - (I) or an antibody immunospecific for (I) may be identified in a biological sample in order to diagnose a Neisseria meningitidis infection in an animal. (I) and (II) may be used in a medicament used for generating an immune response in an animal. A composition comprising at least one antibody immunospecific for (I) may be used to treat humans infected with Neisseria meningitidis (all claimed).

Dwg.0/0

L21 ANSWER 12 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-423426 [36] WPIDS
DOC. NO. NON-CPI: N2000-315920
DOC. NO. CPI: C2000-128245
TITLE: Novel **BASB040** polypeptides of **Neisseria meningitidis** useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases comprise a specific amino acid sequence.
DERWENT CLASS: B04 C06 D16 S03
INVENTOR(S): RUELLE, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK) SMITHKLINE BEECHAM BIOLOGICS SA
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000034480	A1	20000615	(200036)*	EN	98

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000017803	A	20000626	(200045)		
EP 1137778	A1	20011004	(200158)	EN	

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000034480	A1	WO 1999-EP9560	19991202
AU 2000017803	A	AU 2000-17803	19991202
EP 1137778	A1	EP 1999-961063	19991202
		WO 1999-EP9560	19991202

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000017803	A	Based on	WO 200034480
EP 1137778	A1	Based on	WO 200034480

PRIORITY APPLN. INFO: GB 1998-26886 19981207
AN 2000-423426 [36] WPIDS
AB WO 200034480 A UPAB: 20000801
NOVELTY - An isolated polypeptide (I) comprising at least 85% identity to a 609, 609 or 587 residue **BASB040** amino acid sequence, of **Neisseria meningitidis** strains ATCC13090, H44, and H76, respectively, all fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide **BASB040** having the 609, 609 or 587 amino acid sequences;

(2) an immunogenic fragment of (Ia) with the same immunogenic activity of (Ia);

(3) an isolated polynucleotide (II) comprising a nucleotide sequence encoding (I) over its entire length, or its complement;

(4) an isolated polynucleotide (IIa) comprising a nucleotide sequence encoding (Ia);

(5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to an 1830 or 1764 nucleotide sequence, both fully defined in the specification, or its complement;

(6) an isolated polynucleotide comprising (IIc) obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe having (IIa);

(7) an expression vector (III), or a recombinant live microorganism, comprising (II)-(IIc);

(8) a host cell (IV) comprising (III) or a subcellular fraction or a membrane of (IV) expressing (I);

(9) producing (I), comprising culturing (IV) under expression conditions and recovering the polypeptide from the medium;

(10) expressing (II)-(IIc) by transforming (IV) and culturing under expression conditions;

(11) a vaccine composition (V) comprising (I) or (II)-(IIc);

(12) an antibody (Ab) immunospecific for (I) or (Ia) or its immunological fragment; and

(13) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

MECHANISM OF ACTION - Vaccine. No supporting data given.

USE - (V) is useful for preparing a medicament to generate an immune response in an animal (claimed). (I) and Ab are useful for diagnosing **Neisseria meningitidis** infection by identifying the presence of (I) or Ab within a biological sample from an animal suspected of having such an infection (claimed). (T) is useful for treating humans with **Neisseria meningitidis** (claimed). (II) has utility in diagnosis of the stage, and type, of infection and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/2

L21 ANSWER 13 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-423415 [36] WPIDS
DOC. NO. CPI: C2000-128234
TITLE: Isolated nucleic acid molecule for eliciting immune response in mammal encodes Neisseria meningitidis heat shock protein 70, Aspergillus fumigatus Hsp60 and Candida glabrata Hsp60 polypeptide.
DERWENT CLASS: B04 D16
INVENTOR(S): WISNIEWSKI, J
PATENT ASSIGNEE(S): (STRE-N) STRESSGEN BIOTECHNOLOGIES CORP
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000034465	A2	20000615	(200036)*	EN	118

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000015408 A 20000626 (200045)
EP 1137770 A2 20011004 (200158) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000034465	A2	WO 1999-CA1152	19991201
AU 2000015408	A	AU 2000-15408	19991201
EP 1137770	A2	EP 1999-957790	19991201
		WO 1999-CA1152	19991201

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000015408	A	Based on	WO 200034465
EP 1137770	A2	Based on	WO 200034465

PRIORITY APPLN. INFO: US 1998-207388 19981208
AN 2000-423415 [36] WPIDS
AB WO 200034465 A UPAB: 20000801
NOVELTY - An isolated nucleic acid molecule encoding Neisseria meningitidis heat shock protein (Hsp) 70 (I), Aspergillus fumigatus Hsp60 (II) or Candida glabrata Hsp60 (III) polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid selected from a 2465, 1929 or 1989 base pair sequence, nucleotides 357-2286 of the 2465 base pair sequence (bps), or nucleotides 4-1932 of a 1932 bps, all fully defined in the specification, and their complements;

(2) an isolated nucleic acid molecule comprising a nucleotide sequence identical to a segment of contiguous nucleotide bases comprising at least 25% of a 2465 bps at position 358-2286, a 1932 bps, a 1929 bps or 1989 bps or a complement;

(3) an isolated nucleic acid molecule comprising a nucleotide sequence identical to the segment of contiguous nucleotide bases comprising at least 25% of a 2480 bps, a 1761 bps, or a 1820 bps, all fully defined in the specification, or a complement;

(4) an isolated nucleic acid molecule comprising a nucleotide sequence identical to the segment of contiguous nucleotide bases comprising at least 25% of a 2051 bps, a 1755 bps or a 1814 bps, all fully defined in the specification, or a complement;

(5) isolated nucleic acid molecule comprising a nucleic acid sequence that encodes a polypeptide comprising a 1005, 2465, 1932, 1929, or 1981 bps, all fully defined in the specification, or a variant Hsp70 that is at least 95% homologous to the polypeptide, percentage homology is determined to an algorithm incorporated in a protein database search program used in BLAST (RTM) or DNA star Megalign (RTM);

(6) isolated nucleic acid molecule comprising a nucleic acid sequence that encodes a polypeptide comprising a 2480, 1761, or 1820

bps, ally fully defined in the specification, or a variant Hsp60 that is at least 95% homologous to the polypeptide, percentage homology is determined to an algorithm incorporated in a protein database search program used in BLAST (RTM) or DNA star Megalign (RTM);

(7) isolated nucleic acid molecule comprising a nucleic acid sequence that encodes a polypeptide comprising a 2051, 1755, or 1814 bps, all fully defined in the specification, or a variant Hsp60 that is at least 95% homologous to the polypeptide, percentage homology is determined to an algorithm incorporated in a protein database search program used in BLAST (RTM) or DNA star Megalign (RTM);

(8) isolated nucleic acid molecule encoding at least 8 contiguous amino acids of (I) from the 1932 base pair sequence, where the encoded polypeptide is able to bind to a major histocompatibility complex;

(9) isolated nucleic acid molecule encoding at least 8 contiguous amino acids of (II) from the 2480 base pair sequence, where the encoded polypeptide is able to bind to a major histocompatibility complex;

(10) isolated nucleic acid molecule encoding at least 8 contiguous amino acids of (II) from the 2051 base pair sequence, where the encoded polypeptide is able to bind to a major histocompatibility complex;

(11) isolated (I), (II) and (III);

(12) isolated polypeptide comprising an amino acid sequence having at least 95% homology to the polypeptide with a 641, 585, or 561 residue amino acid sequence, fully defined in the specification, which selectively binds to an antibody specific for (I), (II), or (III) respectively;

(13) a vector (V) containing the isolated nucleic acid molecule encoding (I), (II) or (III);

(14) host cell containing (V);

(15) composition comprising (I), (II) or (III) in combination with a carrier or diluent; and

(16) a probe or polymerase chain reaction (PCR) primer (P) for detecting DNA encoding (I), comprising at least 15 contiguous bases from a 2465, 1932, 1929 or 1981 base pair sequence, (II) comprising at least 15 contiguous bases from a 2480, 1761 or 1820 base pair sequence and (III), comprising at least 15 contiguous bases from a 2051, 1755, 1814 base pair sequence.

ACTIVITY - Antibiotic.

MECHANISM OF ACTION - The polypeptides generate an immune response to the bacteria.

USE - (I), (II) and (III) are useful for eliciting or enhancing an immune response in a mammal against **Neisseria meningitidis**, Candida glabrata and Aspergillus fumigatus, by administering target antigen joined to (I), (II) or (III) **polypeptide**, or a fusion **protein** containing sequences of the **polypeptide** fused to sequences of (I), (II) or (III) **polypeptide** (claimed). They are useful for diagnosing the presence of (I), (II) or (III) in a sample by performing a polymerase chain reaction (PCR) amplification of DNA fraction obtained from the sample using at least one (P) (claimed). (I), (II) or (III) **nucleotide** sequences are useful for producing recombinant **proteins** for **immunizing** an animal.

Dwg.0/27

L21 ANSWER 14 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-339694 [29] WPIDS
DOC. NO. NON-CPI: N2000-254985
DOC. NO. CPI: C2000-103147
TITLE: New isolated outer membrane protein 85 of Neisseria gonorrhoeae and N. meningitidis useful for vaccine, therapeutic and diagnostic compositions for gonococcal or meningococcal infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): JUDD, R C; MANNING, S D
PATENT ASSIGNEE(S): (UYMO-N) UNIV MONTANA
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000023595	A1	20000427	(200029)*	EN	98
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: CA US					
EP 1123403	A1	20010816	(200147)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000023595	A1	WO 1998-US22352	19981022
EP 1123403	A1	EP 1998-953873	19981022
		WO 1998-US22352	19981022

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1123403	A1	Based on	WO 200023595

PRIORITY APPLN. INFO: WO 1998-US22352 19981022
AN 2000-339694 [29] WPIDS
AB WO 200023595 A UPAB: 20000617
NOVELTY - Isolated outer membrane proteins (I) and (II) of Neisseria gonorrhoeae and N. meningitidis, respectively, with an apparent molecular weight of 85kDa, are new. (I) and (II) comprise the fully defined 792 and 797 amino acid sequences, respectively, or fragments or derivatives of these with at least 80% homology to (I) or (II).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) nucleic acid sequences (Ia) and (IIa) encoding (I), (II) or their fragments;

(2) nucleic acid molecules (Ib) and (IIb) comprising the nucleic acid sequences under the control of promoters which direct expression of the Omp85 or fragment in a selected host cell;

(3) host cells (III) transformed with (Ib) and (IIb);

(4) recombinant viruses (IV) comprising (Ib) and (IIb);

(5) preparation and recombinant expression of (I) and (II);

(6) isolated antibodies which bind to (I) and (II) or their fragments;

(7) anti-idiotype antibodies specific for the antibodies of (6);

(8) diagnostic reagents comprising nucleic acid sequences selected from:

(a) nucleic acid sequences encoding (I) and (II), isolated from cellular materials with which they are naturally associated;

(b) the fully defined 2379 or 2394 base pair sequences, or their antisense molecules;

(c) fragments of any of (a) or (b) comprising at least 15 nucleotides in length;

(d) sequences which hybridize to (a) - (c) under stringent conditions;

(e) allelic variants of any of (a) - (d);

(f) mutants of (a) - (e); and

(g) sequences encoding (I), (II) or their fragments fused to a sequence encoding a second protein; and detectable labels which are associated with their respective sequence;

(9) diagnostic reagents comprising the antibodies and detectable labels;

(10) vaccines comprising (I), (II), fusion proteins or their fragments or (Ia) and (IIa);

(11) methods for identifying compounds which specifically bind to (I), (II) or their fragments comprising contacting the proteins or fragments with a test compound to permit binding of the test compound to (I) or (II) and determining the amount of test compound which is bound to (I) or (II);

(12) a kit for diagnosing infection with N. meningitidis, comprising (II), (IIa), or their fragments, or antibodies against (II) with a detectable label;

(13) compounds identified by (11); and

(14) a method for identifying a pharmacomimetic of (I) or (II), comprising:

(a) identifying a compound, which binds to (I) or (II) by screening the (I) or (II) against a battery of compounds;

(b) performing computer modeling of the three dimensional structure of (I) or (II) or the binding compound to identify a compound with the same three dimensional structure as (I) or (II) or its binding compound; and

(c) screening the selected compound in a biological assay.

ACTIVITY - Antibacterial; antigonococcal; antimeningococcal; immunostimulant.

MECHANISM OF ACTION - Vaccine.

USE - (I), (II), (Ia), (IIa) and their fragments are useful in compositions for use in the prevention, treatment and diagnosis of non-symptomatic gonococcal infection or meningococcal infection and symptomatic disease, by the detection of hybridization complexes. (I) and (II) are also useful in research. (Ia) and (IIa) are useful in the development of diagnostic and antisense probes for use in detecting and diagnosing the above infections. Antigens and antibodies specific for (I) and (II) also provide diagnostic, therapeutic and prophylactic compositions and methods for the treatment or prevention of the infections described above. The antibodies are useful for inducing a protective immune response in humans or animals with N. gonorrhoeae, **N. meningitidis**, or other Neisseria species (all claimed). The **proteins**, antibodies and **polynucleotide** sequences of the present invention may also be used in the screening and development of chemical compounds such as drugs or **vaccines**.

Dwg.0/8

L21 ANSWER 15 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-293015 [25] WPIDS
DOC. NO. CPI: C2000-088548
TITLE: New mutant cholera holotoxin having a point mutation at amino acid position 29 of the A subunit useful as an adjuvant in an antigenic composition to enhance the immune response in a vertebrate host to a selected antigen from a pathogen.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): ELDRIDGE, J H; GREEN, B A; HANCOCK, G E; HOLMES, R K; JOBLING, M G; PEEK, J A
PATENT ASSIGNEE(S): (AMCY) AMERICAN CYANAMID CO; (USSH) US DEPT HEALTH & HUMAN SERVICES; (USGO) UNIV UNIFORMED SERVICES HEALTH SCI
COUNTRY COUNT: 86
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000018434	A1	20000406	(200025)*	EN	152
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9964039	A	20000417	(200035)		
BR 9914160	A	20010626	(200140)		
EP 1117435	A1	20010725	(200143)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CN 1320043	A	20011031	(200215)		
KR 2001085859	A	20010907	(200218)		
JP 2002525093	W	20020813	(200267)		140

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000018434	A1	WO 1999-US22520	19990930
AU 9964039	A	AU 1999-64039	19990930
BR 9914160	A	BR 1999-14160	19990930
		WO 1999-US22520	19990930
EP 1117435	A1	EP 1999-951639	19990930
		WO 1999-US22520	19990930
CN 1320043	A	CN 1999-811557	19990930
KR 2001085859	A	KR 2001-703968	20010328
JP 2002525093	W	WO 1999-US22520	19990930
		JP 2000-571951	19990930

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9964039	A	Based on	WO 200018434
BR 9914160	A	Based on	WO 200018434
EP 1117435	A1	Based on	WO 200018434

Searcher : Shears 308-4994

JP 2002525093 W Based on WO 200018434

PRIORITY APPLN. INFO: US 1998-102430P 19980930
AN 2000-293015 [25] WPIDS
AB WO 200018434 A UPAB: 20000524
NOVELTY - An antigenic composition which comprises a mutant cholera holotoxin featuring a point mutation at amino acid 29 of the A subunit where the glutamic acid residue is replaced by an amino acid other than aspartic acid.

DETAILED DESCRIPTION - The antigenic composition (AC) enhances the immune response in a vertebrate host to an antigen selected from a pathogenic bacterium, virus, fungus or parasite. The holotoxin has reduced toxicity compared to a wild-type cholera holotoxin.
INDEPENDENT CLAIMS are also included for the following:

(1) a plasmid containing an isolated and purified DNA sequence comprising a DNA sequence which encodes an immunogenic mutant cholera holotoxin having a substitution other than aspartic acid for the glutamic acid at position 29 of the A subunit of the cholera holotoxin and where the DNA sequence is operatively linked to an arabinose inducible promoter;

(2) a host cell transformed, transduced or transfected with the plasmid of claim (1); and

(3) producing an immunogenic mutant cholera holotoxin where the holotoxin has reduced toxicity compared to the wild type and has a substitution other than aspartic acid for the glutamic acid at position 29 of the A subunit of cholera holotoxin. The method comprises transforming, transducing or transfecting a host cell with the plasmid of claim (1) and culturing the host cell under conditions which permit the expression of the recombinant immunogenic detoxified protein by the host cell.

ACTIVITY - Immunostimulatory. 1 micro g of CT-CRM-E29H facilitated the greatest systemic and local humoral immune responses against rP4 protein. This example describes the immune responses of BALB/c mice immunized with recombinant (r) P4 and P6 Outer Membrane Proteins of Nontypable Haemophilus influenzea (NTHi). In a first experiment, five BALB/c mice per group were immunized intranasally on days 0, 21 and 35 with a 10 mu l dose containing 5 micro g rP4 or 10 micro g rP6 plus 1 micro g of the adjuvant (CT, CT-B, E29H, E110D, E112D, R7K and R11K). The anti-rP4 IgG antibody titers were determined by ELISA on pooled samples collected at days 0, 21, 35 and 48. For the cholera mutant adjuvant E29H the titre increased from 1.052 at day 0 to 95,922 at day 48 this compared to 1,157 at day 0 to 1,968 at day 48 where no adjuvant was added.

MECHANISM OF ACTION - Induction of IgA in mucosal surfaces. The IgA response in a bronchoalveolar wash on day 49 after immunization with a dose containing rP4 and the adjuvant E29H showed titre of 845 compared to 27 when no adjuvant was added.

USE - A method is claimed for increasing the ability of an antigenic composition (AC) to enhance an immune response of a vertebrate host against a selected antigen such as a pathogenic bacterium, virus, fungus or parasite, by administration of the antigenic composition. An effective amount of the cholera holotoxin is used to enhance this immune response in a vertebrate host to the antigen. The preferred antigenic compositions listed under preferred composition are able to elicit an increased immune response of a vertebrate host. Desirable bacterial vaccines including the CT-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by Haemophilus influenzae,

Haemophilus somnus, Moraxella catarrhalis, Streptococcus pyrogens, Streptococcus agalactiae, Helicobacter pylori, Neisseria meningitidis, Neisseria gonorrohoea Chlamydia trachomatis, Salmonella typhi, Eschericia coli, Shigella, Vibrio cholerae, Corynebacterium diphtheriae, Mycobacterium tuberculosis Mycobacterium avium-Mycobacterium intracellulare complex, Proteus mirabilis, Proteus vulgaris, Staphylococcus aureus, Clostridium tetani, Leptospira interrogans and Mycoplasma gallisepticum. Desirable viral vaccines including the CT-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by the following viruses: Respiratory synctial virus, Parainfluenza virus types 1-3, Influenza virus, Herpes simplex virus, Human cytometagalovirus, Human immunodeficiency virus, Hepatitis A, B and C, Human papillomavirus, poliovirus, rotavirus, calciviruses, Measles virus, Mumps virus, Rubella virus, adenovirus, rabies virus, canine distemper virus, feline leukemia virus, Marek's disease virus, equine arteritis virus and various Encephalitis viruses. Desirable vaccines against fungal pathogens include those directed to the prevention and/or treatment of disease caused by Aspergillus Blastomyces, Candida, Coccidiodes, Cryptococcus and Histoplasma. Desirable vaccines against parasites including the CR-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by Leishmania major, Ascaris, Trichuris, Giardia, Schistosoma, Cryptosporidium, Trichomonas, Toxoplasma gondii and Pneumocystis carinii.

ADVANTAGE - Parenteral immunization regimens are usually ineffective in inducing secretory IgA responses. However, in this approach the coadministration of (cholera toxin) CT, which is a mucosal adjuvant, with an unrelated antigen results in the induction of concurrent circulating and mucosal antibody responses to that antigen. The mutated CT has reduced toxicity so that the symptoms of diarrhoea caused by wild type CT are reduced.

Dwg.0/14

L21 ANSWER 16 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-256581 [22] WPIDS
CROSS REFERENCE: 2000-237782 [20]
DOC. NO. CPI: C2000-078252
TITLE: **Neisseria meningitidis** NMASP **polypeptide, nucleotide** sequences and antibodies, useful in **vaccines** against infection.
DERWENT CLASS: B04 D16
INVENTOR(S): HARRIS, A M; JACKSON, W J
PATENT ASSIGNEE(S): (ANTE-N) ANTEX BIOLOGICS INC
COUNTRY COUNT: 86
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000012535	A2	20000309	(200022)*	EN	75
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW					
AU 9957894	A	20000321	(200031)		

EP 1109454 A2 20010627 (200137) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2002523077 W 20020730 (200264) 98

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012535	A2	WO 1999-US19663	19990901
AU 9957894	A	AU 1999-57894	19990901
EP 1109454	A2	EP 1999-945257	19990901
		WO 1999-US19663	19990901
JP 2002523077	W	WO 1999-US19663	19990901
		JP 2000-567554	19990901

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9957894	A	Based on	WO 200012535
EP 1109454	A2	Based on	WO 200012535
JP 2002523077	W	Based on	WO 200012535

PRIORITY APPLN. INFO: US 1998-98685P 19980901
AN 2000-256581 [22] WPIDS
CR 2000-237782 [20]
AB WO 200012535 A UPAB: 20021105
NOVELTY - An isolated Neisseria meningitidis NMASP polypeptide, which has a molecular weight of about 40-55 kD, determined by sodium dodecyl sulfate (SDS)-PAGE (polyacrylamide gel electrophoresis), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a peptide fragment of NMASP;

(2) an isolated antibody that specifically binds NMASP;

(3) an antigenic composition, vaccine or pharmaceutical composition comprising NMASP or a peptide fragment or an antibody of (2);

(4) an isolated DNA comprising a nucleotide sequence encoding NMASP or its fragments;

(5) an isolated DNA sequence having a 153 base pair (bp) sequence given in the specification;

(6) an isolated DNA which comprises a nucleotide sequence that hybridizes under high stringency conditions to a sequence of (5);

(7) plasmid pNmAH116 obtainable from Escherichia coli Top10 pNmAH116) as deposited with the ATCC and assigned accession number 98839;

(8) a method (A) for assaying for an agent that interacts with NMASP;

(9) an antagonist which inhibits the activity or expression of NMASP; and

(10) a method for identifying compounds which interact with and inhibitor or activate an activity of NMASP, comprising contacting the polypeptide with the compound to be screened under interaction conditions and assessing the interaction, an interaction being associated with a second component capable of providing a signal in the presence or absence of a signal generated by the interaction

between the polypeptide and the compound.

ACTIVITY - Antibacterial; Anti-inflammatory.

MECHANISM OF ACTION - Vaccine.

USE - NMASP can be used in a method to produce an immune response in an animal. The sequences and antibodies are useful for protection against N. meningitidis, the most common cause of bacterial meningitidis and septicemia in infants and young adults. The antibody is a cytotoxic antibody that mediates complement killing of N. meningitidis. NMASP and NMASP-derived polypeptides may be used as ligands to detect antibodies elicited in response to N. meningitidis infections.

ADVANTAGE - Antibody generated against the NMASP polypeptide in an animal host will exhibit bactericidal and/or opsonic activity against many Neisseria meningitidis strains and thus confer broad cross-strain protection. Bactericidal and/or opsonic antibody will prevent the bacterium from infecting the host and/or enhance the clearance of the pathogen by the host's immune system.

Dwg.0/2

L21 ANSWER 17 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-224702 [19] WPIDS
DOC. NO. NON-CPI: N2000-168304
DOC. NO. CPI: C2000-068763
TITLE: Novel polypeptides derived from the products of the BASB024 gene of Neisseria meningitidis, useful for inducing an immune response and producing antibodies useful for treating meningitis.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 89
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000011182	A1	20000302	(200019)*	EN	102
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9957352	A	20000314	(200031)		
EP 1105493	A1	20010613	(200134)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000011182	A1	WO 1999-EP5989	19990813
AU 9957352	A	AU 1999-57352	19990813
EP 1105493	A1	EP 1999-944404	19990813
		WO 1999-EP5989	19990813

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9957352	A	Based on	WO 200011182
EP 1105493	A1	Based on	WO 200011182

PRIORITY APPLN. INFO: GB 1998-18004 19980818
AN 2000-224702 [19] WPIDS
AB WO 200011182 A UPAB: 20000419
NOVELTY - Polypeptide with at least 85 % identity to a 922 (I), or 921 (II) amino acid (aa) sequence, given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a polypeptide comprising a sequence of 922 aa (III), given in the specification;

(2) an immunogenic fragment of (I), (II), or (III);

(3) a polynucleotide encoding a polypeptide with at least 85 % identity to (I), or (II), or with at least 85 % identity to a sequence encoding (I), or (II);

(4) a polynucleotide comprising a sequence with at least 85 % identity to a sequence of 2769 (IV), or 2766 (V) base pairs (bp), given in the specification;

(5) a polynucleotide comprising a sequence encoding (I) or (II) that is obtainable by screening a library with a hybridization probe comprising (fragments of) (IV) or (V), or encoding (III) obtainable by using a probe comprising (fragments of) a sequence of 2769 bp (VI), given in the specification;

(6) a polynucleotide encoding (III);

(7) a polynucleotide comprising (VI);

(8) a vector or a recombinant live microorganism comprising a polynucleotide as in any of (3)-(7);

(9) a host cell comprising the vector of (8);

(10) production of (I) or (II), or expression of a polynucleotide as in (3)-(7), comprising culturing the host cells of (9);

(11) a vaccine comprising a polypeptide as in (I)-(III), or a polynucleotide as in (3)-(7);

(12) an antibody with specificity against the fragments of (2); and

(13) diagnosing Neisseria meningitidis infection comprising identifying (I), (II), or (III), or an antibody specific for (I), (II), or (III).

ACTIVITY - Antibacterial; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

USE - The **polypeptides** and **polynucleotides** comprising or encoding (I), (II) or a sequence of 922 amino acids (III) (given in the specification) are useful for generating an immune response in an animal (claimed). Antibodies specific to (I), (II) or (III) are useful for treating **N. meningitidis** infection (claimed), which causes bacteremia and meningitis, as in a **vaccine** comprising (I), (II), or (III).

Dwg.0/6

L21 ANSWER 18 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-205407 [18] WPIDS
DOC. NO. CPI: C2000-063253
TITLE: Microparticles with adsorbent surface comprising

polymer and detergent, used as vaccines, and for targeted delivery of e.g. polypeptides, efficient adsorbance of biologically active macromolecules.

DERWENT CLASS: A14 A23 A26 A96 B04 B07 C03 D16
INVENTOR(S): BARACKMAN, J; KAZZAZ, J; O'HAGEN, D; OTT, G S; SINGH, M
PATENT ASSIGNEE(S): (CHIR) CHIRON CORP
COUNTRY COUNT: 87
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000006123	A1	20000210	(200018)*	EN	59
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9952452	A	20000221	(200029)		
EP 1100468	A1	20010523	(200130)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2002521425	W	20020716	(200261)		73

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006123	A1	WO 1999-US17308	19990729
AU 9952452	A	AU 1999-52452	19990729
EP 1100468	A1	EP 1999-937664	19990729
		WO 1999-US17308	19990729
JP 2002521425	W	WO 1999-US17308	19990729
		JP 2000-561979	19990729

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9952452	A	Based on	WO 200006123
EP 1100468	A1	Based on	WO 200006123
JP 2002521425	W	Based on	WO 200006123

PRIORITY APPLN. INFO: US 1999-285855 19990402; US 1998-124533 19980729

AN 2000-205407 [18] WPIDS

AB WO 200006123 A UPAB: 20000412

NOVELTY - Microparticles with an adsorbent surface are new and comprise:

(1) polymer chosen from poly(alpha -hydroxy acid), polyhydroxy butyric acid, polycaprolactone, polyorthoester, polyanhydride or polycyanoacrylate; and

(2) detergent.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of producing microparticles with adsorbent surface to which biologically active macromolecule has been adsorbed.

ACTIVITY - Vaccine; immunomodulating. Microparticle induction

of immune response was examined in guinea pigs following intramuscular immunization. Five formulations were tested: (1) PLG/CTAB gp 120 adsorbed (25 mu g); (2) PLG/CTAB gp 120 adsorbed (25 mu g) + aluminum phosphate; (3) soluble gp 120 DNA (25 mu g) + aluminum phosphate; (4) soluble gp 120 DNA (25 mu g) alone; and (5) MF59 protein (50 mg). GMT of serum was as follows: (1) 1,435 plus or minus 383; (2) 3,624 plus or minus 454; (3) 119 plus or minus 606; (4) 101 plus or minus 55; and (5) 3,468 plus or minus 911. Antibody induction (collection and analysis of serum) were performed and geometric mean titer of serum determined.

USE - Used for diagnosis or treatment of disease, as **vaccines** and to raise and immune response. Used to deliver **polypeptides**, **polynucleotides**, polynucleosides, antigens, pharmaceuticals, hormones, enzymes, transcription or translation mediators, intermediates in metabolic pathway, immunomodulators or adjuvants including aluminum salts (claimed) such as double- and single stranded sequences including cDNA, prokaryotic or eukaryotic mRNA, genomic RNA and DNA sequences form viral or prokaryotic DNA (RNA and DNA viruses), and synthetic DNA sequences, base analogs of DNA and RNA, antibiotics, antivirals, **peptides**, oligopeptides, dimers, multimers, antigens derived from bacteria (Bordetella pertussis, **Neisseria meningitides** (A, B, C, Y), Neisseria gonorrhoeae, Helicobacter pylori and/or Haemophilus influenzae), viruses, parasites, fungi and tumors, non-steroidal anti-inflammatory drugs, analgesics, vasodilators, cardiovascular drugs, psychotropics, neuroleptics, antidepressants, anti-Parkinson drugs, beta blockers, calcium channel blockers, bradykinin inhibitors, angiotensin-converting enzyme inhibitors, prolactin inhibitors, steroids, hormone antagonists, antihistamines, serotonin antagonists, heparin, chemotherapeutic agents, antineoplastics and growth factors (platelet derived growth factor (PDGF), epithelial growth factor (EGF), KGF, insulin-like growth factor (IGF)-1, IFG-2), FGF, **polynucleotides** that encode therapeutic or immunogenic **proteins**, immunogenic **proteins** and epitopes for use in **vaccines**, hormones including **peptide** hormones (insulin, proinsulin, growth hormone, GHRH, luteinizing hormone releasing hormone (LHRH), EGF, somatostatin, SNX-111, BNP, insulinotropin, ANP, FSH, LH, PSH and hCG), gonadal steroid hormones (androgens, estrogens, progesterone), thyroid-stimulating hormone, inhibin, cholecystokinin, ACTH, CRF, dynorphins, endorphins, endothelin, fibronectin fragments, galanin, gastrin, glucagons, GTP-binding **protein** fragments, guanylin, leukokinins, magainin, mastoparans, dermaseptin, systemin, neuromedin, neurotensin, pancreastatin, pancreatic **polypeptide**, substance P, secretin, thymosin, and cytokines (interleukin (IL) 1, IL-2, IL-3, IL-4 and gamma interferon). Used for site-specific targeted delivery.

ADVANTAGE - Efficiently adsorb biologically active macromolecules such as DNA, polypeptides, antigens and adjuvants. Capable of adsorbing wide variety of macromolecules. Flexible delivery systems, particularly for drugs that are highly sensitive and difficult to formulate.

Dwg.0/0

L21 ANSWER 19 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-444400 [37] WPIDS
DOC. NO. NON-CPI: N1999-331439

DOC. NO. CPI: C1999-130937
TITLE: New **protein** and its **nucleotide** sequence, useful in **vaccines** or diagnostic compositions for treating and/or preventing **Neisseria meningitidis** infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): GRANDI, G; MASIGNANI, V; PIZZA, M; RAPPUOLI, R; SCARLATO, V
PATENT ASSIGNEE(S): (CHIR-N) CHIRON SPA
COUNTRY COUNT: 85
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9936544	A2	19990722	(199937)*	EN	123
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9919795	A	19990802	(199954)		
EP 1047784	A2	20001102	(200056)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
CN 1292820	A	20010425	(200143)		
BR 9906927	A	20011120	(200202)		
JP 2002508966 W		20020326	(200236)		198

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9936544	A2	WO 1999-IB103	19990114
AU 9919795	A	AU 1999-19795	19990114
EP 1047784	A2	EP 1999-900583	19990114
		WO 1999-IB103	19990114
CN 1292820	A	CN 1999-803873	19990114
BR 9906927	A	BR 1999-6927	19990114
		WO 1999-IB103	19990114
JP 2002508966 W		WO 1999-IB103	19990114
		JP 2000-540246	19990114

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9919795	A	Based on	WO 9936544
EP 1047784	A2	Based on	WO 9936544
BR 9906927	A	Based on	WO 9936544
JP 2002508966 W		Based on	WO 9936544

PRIORITY APPLN. INFO: GB 1998-22143 19981009; GB 1998-760 19980114; GB 1998-19015 19980901
AN 1999-444400 [37] WPIDS
AB WO 9936544 A UPAB: 19990914
NOVELTY - A protein from Neisseria meningitidis is new.
DETAILED DESCRIPTION - A protein from Neisseria meningitidis

has one of amino acid sequences (S1)-(S3) of 245, 591 and 592 amino acids, respectively (all are given in the specification)

INDEPENDENT CLAIMS are also included for the following:

(1) a protein (I) comprising an amino acid sequence, having at least 50% sequence identity, or a fragment of the 45 sequences (given in the specification), e.g. (S1)-(S3). specification;

(2) an antibody (III) which binds to (I);

(3) a nucleic acid (II) molecule which encodes (I);

(4) a nucleic acid molecule comprising a complementary nucleic acid molecule to (II);

(5) a nucleic acid molecule comprising a nucleic acid sequence, having at least 50% sequence identity to (II);

(6) a nucleic acid molecule which can hybridize to (II) under high stringency conditions;

(7) a composition comprising (I), (II) or (III).

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - None given.

USE - The composition is useful as a pharmaceutical, e.g. a vaccine composition or a diagnostic composition. The composition is also useful for treating or preventing an infection due to Neisserial bacteria, especially Neisseria meningitidis.

ADVANTAGE - None given.

Dwg.0/7

L21 ANSWER 20 OF 31 MEDLINE DUPLICATE 1

ACCESSION NUMBER:	1999242827 MEDLINE
DOCUMENT NUMBER:	99242827 PubMed ID: 10225902
TITLE:	Structural and evolutionary inference from molecular variation in Neisseria porins.
AUTHOR:	Derrick J P; Urwin R; Suker J; Feavers I M; Maiden M C
CORPORATE SOURCE:	Department of Biomolecular Sciences, UMIST, Manchester M60 1QD, United Kingdom.
SOURCE:	INFECTION AND IMMUNITY, (1999 May) 67 (5) 2406-13. Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY:	United States
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
OTHER SOURCE:	GENBANK-AF121870; GENBANK-AF121871; GENBANK-AF121872; GENBANK-AF121873; GENBANK-AF121874; GENBANK-AF121875; GENBANK-AF121876
ENTRY MONTH:	199905
ENTRY DATE:	Entered STN: 19990601 Last Updated on STN: 19990601 Entered Medline: 19990518

AB The porin **proteins** of the pathogenic Neisseria species, Neisseria gonorrhoeae and **Neisseria meningitidis**, are important as serotyping antigens, putative **vaccine** components, and for their proposed role in the intracellular colonization of humans. A three-dimensional structural homology model for Neisseria porins was generated from Escherichia coli porin structures and **N. meningitidis** PorA and PorB sequences. The Neisseria sequences were readily assembled into the 16-strand beta-barrel fold characteristic of porins, despite relatively low sequence identity with the Escherichia **proteins**. The model provided information on the spatial relationships of variable regions of **peptide** sequences in

the PorA and PorB trimers and insights relevant to the use of these **proteins** in **vaccines**. The **nucleotide** sequences of the porin genes from a number of other Neisseria species were obtained by PCR direct sequencing and from GenBank. Alignment and analysis of all available Neisseria porin sequences by use of the structurally conserved regions derived from the PorA and PorB structural models resulted in the recovery of an improved phylogenetic signal. Phylogenetic analyses were consistent with an important role for horizontal genetic exchange in the emergence of different porin classes and confirmed the close evolutionary relationships of the porins from **N. meningitidis**, N. gonorrhoeae, Neisseria lactamica, and Neisseria polysaccharea. Only members of this group contained three conserved lysine residues which form a potential GTP binding site implicated in pathogenesis. The model placed these residues on the inside of the pore, in close proximity, consistent with their role in regulating pore function when inserted into host cells.

L21 ANSWER 21 OF 31 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1999251147 MEDLINE
DOCUMENT NUMBER: 99251147 PubMed ID: 10234839
TITLE: Characterisation of the lpdA gene from Neisseria meningitidis by polymerase chain reaction, restriction fragment length polymorphism and sequencing.
AUTHOR: Silva R; Menendez T; Alonso L M; Iglesias E; Musacchio A; Leal M J; Alvarez A; Coizeau E; Martin A; Herrera L; Guillen G
CORPORATE SOURCE: Division de Vacunas, Centro de Ingenieria Genetica y Biotecnologia, La Habana, Cuba.. ricardo.silva@cigb.edu.cu
SOURCE: FEMS MICROBIOLOGY LETTERS, (1999 May 1) 174 (1) 191-9.
Journal code: 7705721. ISSN: 0378-1097.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-X77920; GENBANK-X81450; GENBANK-X84696; GENBANK-X89747; GENBANK-X89748; GENBANK-X90938
ENTRY MONTH: 199906
ENTRY DATE: Entered STN: 19990618
Last Updated on STN: 19990618
Entered Medline: 19990610

AB P64k **protein** from **Neisseria meningitidis** is well recognised in sera from individuals convalescent from meningococcal disease or **vaccinated** with the Cuban antimeningococcal **vaccine** VA-MENGOC-BC. The presence of the **protein** in more than 80 meningococcal strains has also been verified. It is immunogenic in animal models and the antibodies elicited show bactericidal activity against meningococci. To further investigate at the molecular level whether lpdA, the gene coding for P64k **protein**, is conserved among different **N. meningitidis** strains, a total of 20 strains isolated from different geographic areas were differentiated on the basis of restriction fragment length polymorphism (RFLP) patterns after polymerase chain reaction (PCR) amplification of the lpdA gene and restriction endonuclease digestion with HpaII. Although a total of

five different PCR-RFLP patterns were present, **nucleotide** sequence determination showed that identity levels were as high as 93-99% among the **N. meningitidis** strains analysed.

L21 ANSWER 22 OF 31 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 97258610 MEDLINE
DOCUMENT NUMBER: 97258610 PubMed ID: 9104804
TITLE: Highly conserved Neisseria meningitidis surface protein confers protection against experimental infection.
AUTHOR: Martin D; Cadieux N; Hamel J; Brodeur B R
CORPORATE SOURCE: Unite de Recherche en Vaccinologie, Centre de Recherche en Infectiologie, Centre Hospitalier Universitaire de Quebec, Ste-Foy, Canada.
SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (1997 Apr 7) 185 (7) 1173-83.
Journal code: 2985109R. ISSN: 0022-1007.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U52066
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970523
Last Updated on STN: 19970523
Entered Medline: 19970514

AB A new surface **protein**, named NspA, which is distinct from the previously described **Neisseria meningitidis** outer membrane **proteins** was identified. An NspA-specific mAb, named Me-1, reacted with 99% of the meningococcal strains tested indicating that the epitope recognized by this particular mAb is widely distributed and highly conserved. Western immunoblotting experiments indicated that mAb Me-1 is directed against a **protein** band with an approximate molecular mass of 22,000, but also recognized a minor **protein** band with an approximate molecular mass of 18,000. This mAb exhibited bactericidal activity against four meningococcal strains, two isolates of serogroup B, and one isolate from each serogroup A and C, and passively protected mice against an experimental infection. To further characterize the NspA **protein** and to evaluate the protective potential of recombinant NspA **protein**, the nspA gene was identified and cloned into a low copy expression vector. **Nucleotide** sequencing of the meningococcal insert revealed an ORF of 525 **nucleotides** coding for a **polypeptide** of 174 amino acid residues, with a predicted molecular weight of 18,404 and a isoelectric point of 9.93. Three injections of either 10 or 20 microg of the affinity-purified recombinant NspA **protein** efficiently protected 80% of the mice against a meningococcal deadly challenge comparatively to the 20% observed in the control groups. The fact that the NspA **protein** can elicit the production of bactericidal and protective antibodies emphasize its potential as a **vaccine** candidate.

L21 ANSWER 23 OF 31 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 97445911 MEDLINE
DOCUMENT NUMBER: 97445911 PubMed ID: 9302199

TITLE: Heterogeneity of tbpB, the transferrin-binding protein B gene, among serogroup B Neisseria meningitidis strains of the ET-5 complex.

AUTHOR: Rokbi B; Mignon M; Caugant D A; Quentin-Millet M J
CORPORATE SOURCE: Pasteur Merieux Connaught, Marcy-l'Etoile, France.

SOURCE: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (1997 Sep) 4 (5) 522-9.
Journal code: 9421292. ISSN: 1071-412X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-Y09617; GENBANK-Y09618; GENBANK-Y09619; GENBANK-Y09977; GENBANK-Z15130; GENBANK-Z50732
ENTRY MONTH: 199710
ENTRY DATE: Entered STN: 19971224
Last Updated on STN: 19971224
Entered Medline: 19971030

AB ET-5 complex strains of **Neisseria meningitidis** were traced intercontinentally and have been causing hyperendemic meningitis on a worldwide scale. In an attempt to develop a fully broad cross-reactive transferrin-binding **protein** B (TbpB)-based **vaccine**, we undertook to assess the extent of variability of TbpB **proteins** among strains of this epidemiological complex. For this purpose, a PCR-based method was developed to study the heterogeneity of the tbpB genes from 31 serogroup B **N. meningitidis** strains belonging to the ET-5 complex. To define adequate primers, the tbpB gene from an ET-5 complex strain, 8680 (B:15:P1.3; isolated in Chile in 1987), was cloned and the **nucleotide** sequence was determined and compared to two other previously published tbpB sequences. A tbpB fragment was amplified from genomic DNA from each of the 31 strains. By this method, heterogeneity in size was observed and further characterized by restriction pattern analysis with four restriction enzymes and by sequencing tbpB genes from three other ET-5 complex strains. Four distinct tbpB gene types were identified. Fifty-five percent of the strains studied (17/31) harbored tbpB genes similar to that of strain BZ83 (B:15:-) isolated in The Netherlands in 1984. Ten of the 31 strains (32.2%) had tbpB genes close to that of strain M982. Only 3 of the 31 (9.6%) were found to harbor tbpB genes close to that of strain 8680, and finally one strain, 8710 (B:15:P1.3; isolated in Chile in 1987), was found to harbor a tbpB gene different from all the others. These results demonstrated a pronounced variability among tbpB alleles within a limited number of ET-5 complex strains collected over a 19-year period. Despite the genetic heterogeneity observed, specific antisera raised to purified Tbps from ET-5 complex strains showed broad cross-reactivity between different TbpBs both by Western blot analysis and bactericidal assay, confirming that a limited number of TbpB molecules included in a **vaccine** are likely to induce broadly cross-reactive antibodies against the different strains.

L21 ANSWER 24 OF 31 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 96400835 MEDLINE
DOCUMENT NUMBER: 96400835 PubMed ID: 8807211
TITLE: Antigenic diversity of meningococcal outer membrane protein PorA has implications for epidemiological analysis and vaccine design.

AUTHOR: Feavers I M; Fox A J; Gray S; Jones D M; Maiden M C
CORPORATE SOURCE: Division of Bacteriology, National Institute for Biological Standards and Control, Potters Bar, Hertfordshire, United Kingdom.
SOURCE: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, (1996 Jul) 3 (4) 444-50.
Journal code: 9421292. ISSN: 1071-412X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199701
ENTRY DATE: Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970131

AB The currently used serological subtyping scheme for the pathogen **Neisseria meningitidis** is not comprehensive, a proportion of isolates are reported as not subtypeable (NST), and few isolates are fully characterized with two subtypes for each strain. To establish the reasons for this and to assess the effectiveness of DNA-based subtyping schemes, dot blot hybridization and **nucleotide** sequence analyses were used to characterize the genes encoding antigenic variants of the meningococcal subtyping antigen, the PorA **protein**. A total of 233 strains, including 174 serologically NST and 59 partially or completely subtyped meningococcal strains, were surveyed. The NST isolates were chosen to be temporally and geographically representative of NST strains, isolated in England and Wales, and submitted to the Meningococcal Reference Unit in the period 1989 to 1991. The DNA-based analyses demonstrated that all of the strains examined possessed a porA gene. Some of these strains were serologically NST because of a lack of monoclonal antibodies against certain PorA epitopes; in other cases, strains expressed minor variants of known PorA epitopes that did not react with monoclonal antibodies in serological assays. Lack of expression remained a possible explanation for serological typing failure in some cases. These findings have important implications for epidemiological analysis and **vaccine** design and demonstrate the need for genetic characterization, rather than phenotypic characterization using monoclonal antibodies, for the identification of meningococcal strains.

L21 ANSWER 25 OF 31 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 96146050 MEDLINE
DOCUMENT NUMBER: 96146050 PubMed ID: 8581171
TITLE: Monoclonal antibody recognition of members of the meningococcal P1.10 variable region family: implications for serological typing and vaccine design.
AUTHOR: Suker J; Feavers I M; Maiden M C
CORPORATE SOURCE: Division of Bacteriology, National Institute for Biological Standards and Control, Potters Bar, Herts, UK.
SOURCE: MICROBIOLOGY, (1996 Jan) 142 (Pt 1) 63-9.
Journal code: 9430468. ISSN: 1350-0872.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199603
ENTRY DATE: Entered STN: 19960327
Last Updated on STN: 19960327
Entered Medline: 19960319

AB Identification of antigenic variants of the PorA **protein** of **Neisseria meningitidis** with specific mAbs (serosubtyping) is used in meningococcal strain characterization and the resultant data has been exploited in the design of novel multivalent **vaccines** against this important pathogen. The reactivity of the P1.10 serosubtyping mAb MN20F4.17 with eight members of the meningococcal P1.10 variable region (VR) family (prototype P1.10 and variants P1.10a-P1.10g), identified by **nucleotide** sequence analysis of porA genes, was investigated. Analysis of overlapping synthetic octapeptides by ELISA demonstrated that the **peptide** sequence, QNQRPTL, present only in the prototype P1.10, was sufficient for binding of the mAb. A linear **peptide** of 14 amino acids, containing the minimum epitope, inhibited binding of mAb MN20F4.17 to whole cells in a competitive ELISA. This binding was weak compared with a tethered **peptide** or the native **protein**. In whole-cell ELISA or dot-blot assays using low concentrations of mAb MN20F4.17 only the prototype P1.10 was detected. However, when higher concentrations of antibody were used the prototype P1.10 was detected, together with variants P1.10a, P1.10c and P1.10e by whole-cell ELISA and P1.10a and P1.10c by the immunoblot technique. The variants P1.10b, P1.10d, P1.10f and P1.10g showed no reactivity with mAb under any of the conditions tested. A survey of the porA genes in serogroup B and C strains revealed that the P1.10a variant, rather than the prototype P1.10, was the most common member of the P1.10 VR family in England and Wales. These data illustrate: (i) the problems associated with epidemiological analyses that rely solely on monoclonal antibodies; (ii) the importance of using defined assay conditions for serosubtyping; and (iii) that genetical analyses provide more reliable information than serological data based on murine reagents for the design of candidate **vaccines** that include PorA.

L21 ANSWER 26 OF 31 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 94040654 MEDLINE
DOCUMENT NUMBER: 94040654 PubMed ID: 8224787
TITLE: Population genetics of a transformable bacterium: the influence of horizontal genetic exchange on the biology of Neisseria meningitidis.
AUTHOR: Maiden M C
CORPORATE SOURCE: Division of Bacteriology, National Institute for Biological Standards and Control, South Mimms, UK.
SOURCE: FEMS MICROBIOLOGY LETTERS, (1993 Sep 15) 112 (3) 243-50. Ref: 25
Journal code: 7705721. ISSN: 0378-1097.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199312
ENTRY DATE: Entered STN: 19940117

Last Updated on STN: 19940117
Entered Medline: 19931208

AB Information of the biochemistry and genetics of bacterial species, usually obtained by the study of single isolates, is enhanced by studies of populations of bacteria. Recent advances in molecular technology, particularly polymerase chain reaction-based **nucleotide** sequence analysis, provide powerful tools for the study of population genetics. Data obtained by such techniques indicate that, while some bacterial species have a clonal population structure, others are non-clonal or panmictic. Clonal populations are a consequence of asexual reproduction by binary fission; panmictic population structures result from 'horizontal' exchange of genetic material between clones. A consequence of horizontal genetic exchange is mosaic gene structures, recognisable by comparisons of **nucleotide** sequences. In transformable bacteria, for example the human pathogen **Neisseria meningitidis**, several different genes, including the gene encoding the class 1 outer membrane **protein**, a major surface antigen, are mosaics. This genetic process has implications both for **vaccine** design and in the interpretation of epidemiological data.

L21 ANSWER 27 OF 31 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 95058178 MEDLINE
DOCUMENT NUMBER: 95058178 PubMed ID: 7526119
TITLE: Expression of meningococcal epitopes in LamB of Escherichia coli and the stimulation of serosubtype-specific antibody responses.
AUTHOR: McCarvil J; McKenna A J; Grief C; Hoy C S; Sesardic D; Maiden M C; Feavers I M
CORPORATE SOURCE: Division of Bacteriology, National Institute for Biological Standards and Control, South Mimms, Hertfordshire, UK.
SOURCE: MOLECULAR MICROBIOLOGY, (1993 Oct) 10 (1) 203-13. Journal code: 8712028. ISSN: 0950-382X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199411
ENTRY DATE: Entered STN: 19950110
Last Updated on STN: 19960129
Entered Medline: 19941129

AB The class 1 outer membrane **protein** (OMP), a major variable surface antigen of **Neisseria meningitidis**, is a component of novel meningococcal **vaccines** currently in field trials. Serological variants of the **protein** are also used to serosubtype meningococci. Most of the amino acid changes that give rise to antigenic variants of the **protein** occur in two variable regions (VR1 and VR2) that are thought to form loops on the cell surface. The polymerase chain reaction (PCR) was used to amplify the **nucleotide** sequences encoding VR1 and VR2 from the chromosomal DNA of **N. meningitidis** strain M1080. These were cloned in frame into the lamB gene of the Escherichia coli expression vector pAJC264. Whole-cell enzyme-linked immunosorbent assays (ELISAs), using monoclonal antibodies, and SDS-PAGE confirmed that, upon induction, strains of E. coli carrying these constructs expressed hybrid LamB **proteins** containing

the **N. meningitidis** surface loops. These strains were used to **immunize** rabbits and the resultant polyclonal antisera reacted specifically with the class 1 OMP of reference strain M1080 (P1.7). Immunogold labelling of meningococcal cells and whole-cell dot-blot analyses with these antisera showed that the variable epitopes were exposed on the cell surface and confirmed that this approach could be used to obtain serosubtype-specific antisera. The binding profiles of the antisera were determined from their reactions with overlapping synthetic **peptides** and their reactivity compared with that of relevant serosubtype-specific monoclonal antibodies. This approach was used successfully to raise antisera against two other class 1 OMP VR2s. A fourth antiserum raised against a VR2, including the P1.1 epitope, was not subtype specific.

L21 ANSWER 28 OF 31 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 94131278 MEDLINE
DOCUMENT NUMBER: 94131278 PubMed ID: 8299943
TITLE: A rapid and sensitive PCR strategy employed for amplification and sequencing of porA from a single colony-forming unit of Neisseria meningitidis.
AUTHOR: Saunders N B; Zollinger W D; Rao V B
CORPORATE SOURCE: Department of Biology, Catholic University of America, Washington, DC 20064.
SOURCE: GENE, (1993 Dec 31) 137 (2) 153-62.
Journal code: 7706761. ISSN: 0378-1119.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L02929; GENBANK-L11589; GENBANK-L11590; GENBANK-L11591; GENBANK-L11592; GENBANK-L11593; GENBANK-L11594; GENBANK-L24529; GENBANK-Z15047; GENBANK-Z15048
ENTRY MONTH: 199403
ENTRY DATE: Entered STN: 19940318
Last Updated on STN: 19950206
Entered Medline: 19940308

AB The predicted amino acid sequence was determined for the class-1 outer membrane **protein**, PorA, from a B:15:P1.7,3 strain of **Neisseria meningitidis** that is currently causing an epidemic of meningitis in Northern Chile. The P1.7,3 PorA showed a unique sequence in the exposed loop 4 of the putative porin structure that is different from all the reported PorA sequences. Based on the **nucleotide** (nt) sequence of the P1.7,3 porA, we designed two sets of PCR (polymerase chain reaction) primers that specifically amplified porA from any **N. meningitidis** strain, and a third set of primers that amplified porA only from the P1.7,3 strain. Using these primers, we developed a sensitive double hot-start nested PCR (HNPCR) strategy that could amplify porA and generate nt sequence from as low as a single colony-forming unit. This strategy consisted of three phases of PCR. The first two phases were designed to generate amplified target DNA that could be directly visualized by ethidium bromide staining starting from one to two molecules of Neisseria genome. The third phase was designed to generate a sequence of several hundred nt directly from the amplified DNA. A number of culture-negative cerebrospinal fluid samples from individuals suspected of meningitis

during a **vaccine** trial were analyzed by this strategy to obtain more accurate information on the actual number of cases that occurred in the study and the non-study populations. The basic HNPCR strategy described here could be applied to amplify and sequence target DNAs from any low-copy-number biological sample.

L21 ANSWER 29 OF 31 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 93328113 MEDLINE
DOCUMENT NUMBER: 93328113 PubMed ID: 8101504
TITLE: Cloning and characterization of the Neisseria meningitidis asd gene.
AUTHOR: Hatten L A; Schweizer H P; Averill N; Wang L; Schryvers A B
CORPORATE SOURCE: Department of Microbiology and Infectious Diseases, University of Calgary Health Sciences Center, Alberta, Canada.
SOURCE: GENE, (1993 Jul 15) 129 (1) 123-8.
Journal code: 7706761. ISSN: 0378-1119.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-D13301; GENBANK-D13302; GENBANK-L03653; GENBANK-L03654; GENBANK-L07632; GENBANK-L11610; GENBANK-X54209; GENBANK-X67926; GENBANK-X68972; GENBANK-Z14063
ENTRY MONTH: 199308
ENTRY DATE: Entered STN: 19930903
Last Updated on STN: 19950206
Entered Medline: 19930824

AB The asd mutants of Gram- and some Gram+ bacteria have an obligate requirement for diaminopimelic acid (DAP), an essential constituent of the cell wall of these organisms. In environments deprived of DAP, i.e., mammalian tissues, they will undergo lysis. This has previously been exploited to develop **vaccine** strains of Salmonella typhimurium and Streptococcus mutans. As a first step for the development of a biosafe **Neisseria meningitidis** laboratory strain, we have cloned the asd from wild-type strain B16B6 by complementation of an Escherichia coli asd mutant. By subcloning and insertion mutagenesis, the **N. meningitidis** asd was localized to a 1.5-kb DNA fragment. In a T7 RNA polymerase-T7 promoter expression system, a 38-kDa **protein** was strongly expressed from this DNA fragment. The N-terminal amino acid (aa) sequence was deduced from the **nucleotide** sequence, which was determined with the help of an in-frame Asd'::'LacZ **protein** fusion. A comparison of the N-terminal aa of the Asd **proteins** from **N. meningitidis** and E. coli revealed 70% identity, suggesting that the Asd **protein** may be highly conserved among Gram- bacteria.

L21 ANSWER 30 OF 31 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1992-081855 [11] WPIDS
DOC. NO. CPI: C1992-037815
TITLE: **Nucleotide** sequence coding for P64K **protein** of **N.MENINGITIDIS** - for preparation of **vaccines** with broad activity spectrum.

Searcher : Shears 308-4994

DERWENT CLASS: B04 D16

INVENTOR(S): ACOSTA, A A; BLANCO, S G; CORDOVA, V M; GRILLO, J M; LASA, A M; LEON, S C; MARTINEZ, L S H; MASO, J R F; MENENDEZ, E C; NIETO, G G; PEREZ, L I N; RODRIGUEZ, E; RODRIGUEZ, R S; ROSALES, J A D; SANTOS, B T; SOSA, M S H; DE COUZEAU RODRIGUEZ, C; DEL VALLE ROSALES, J A; ALVAREZ ACOSTA, A; CARPIO MUNOZ, E L; DE JESUS LEAL ANGULO, M; DE LA CARIDAD SILVA, RODRIGUEZ; DUARTE CANO, C A; GOMEZ RODRIGUEZ, C E; GUILLEN NIETO, G E; MARTIN DUNN, A M; NAZABAL GALVEZ, C; QUINTANA VAZQUEZ, D; RODRIGUEZ, E C; COUZEAU RODRIGUEZ, E; CRUZ, L; FERNANDEZ MASO, J R; GONZALEZ BLANCO, S; HERRERA MARTINEZ, L S; HOUSSEIN SOSA, M S; MORERA CORDOVA, V; MUSACCHIO, L; NOVOA PEREZ, L I; SANTOS, B; CRUZ LEON, S; HERRARA MARTINEZ, L S; MUSACCHIO LASA, A; FERNANDEZM, J R; HERRARAMAR, L S; HOUSSEINSO, M S; MORERACORD, V; NOVOAPEREZ, L I; CABALLERO MENENDEZ, E; GOUZEAU RODRIGUEZ, E; GRUZ LEON, S; GUILLEN NIETO, G; MORALES GRILLO, J; SILVA RODRIGUEZ, R; TAMARGO SANTOS, B

PATENT ASSIGNEE(S): (INGG-N) CENT ING GENETICA & BIOTECNOLOGICA; (INGG-N) CENT ING GENETICA Y BIOTECHNOL; (INGG-N) CENT ING GENETICA & BIOTECNOLOGIA; (RODR-I) RODRIGUEZ R S; (CIGB-N) CIGB CENT ING GENETICA & BIOTECNOLOGIA; (INGG-N) CENT INGEN GENETICA Y BIOTECNOLO; (INGE-N) CENT INGEN GENETIC; (INGE-N) CENT ING GENETICA Y BIOTECNOLO; (INGE-N) CENT INGEN GENETICA Y BIOTECNOLO

COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 474313	A	19920311	(199211)*		31
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
AU 9183683	A	19920312	(199220)		
CA 2050749	A	19920308	(199221)		
FI 9104129	A	19920308	(199223)		
NO 9200500	A	19930809	(199340)#		
EP 474313	A3	19930224	(199348)		
US 5286484	A	19940215	(199407)		21
JP 06169779	A	19940621	(199429)		59
AU 657487	B	19950316	(199518)		
EP 474313	B1	19970423	(199721)	EN	31
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
DE 69125769	E	19970528	(199727)		
ES 2103295	T3	19970916	(199744)		
BR 1101051	A3	19980922	(199845)		
NO 304188	B1	19981109	(199851)#		
FI 103511	B1	19990715	(199934)		
RU 2132383	C1	19990627	(200028)		
JP 3253327	B2	20020204	(200211)		37
CA 2050749	C	20020702	(200253)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

EP 474313	A	EP 1991-202291	19910906
AU 9183683	A	AU 1991-83683	19910905
CA 2050749	A	CA 1991-2050749	19910905
FI 9104129	A	FI 1991-4129	19910903
NO 9200500	A	NO 1992-500	19920207
EP 474313	A3	EP 1991-202291	19910906
US 5286484	A	US 1991-754918	19910905
JP 06169779	A	JP 1991-255872	19910907
AU 657487	B	AU 1991-83683	19910905
EP 474313	B1	EP 1991-202291	19910906
DE 69125769	E	DE 1991-625769	19910906
		EP 1991-202291	19910906
ES 2103295	T3	EP 1991-202291	19910906
BR 1101051	A3	BR 1997-1101051	19970514
NO 304188	B1	NO 1992-500	19920207
FI 103511	B1	FI 1991-4129	19910903
RU 2132383	C1	SU 1991-5001752	19910906
JP 3253327	B2	JP 1991-255872	19910907
CA 2050749	C	CA 1991-2050749	19910905

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 657487	B	Previous Publ.	AU 9183683
DE 69125769	E	Based on	EP 474313
ES 2103295	T3	Based on	EP 474313
NO 304188	B1	Previous Publ.	NO 9200500
FI 103511	B1	Previous Publ.	FI 9104129
JP 3253327	B2	Previous Publ.	JP 06169779

PRIORITY APPLN. INFO: CU 1990-145 19900907

AN 1992-081855 [11] WPIDS

AB EP 474313 A UPAB: 19950425

A recombinant polynucleotide comprises a nucleotide sequence coding for a protein P64k of Neisseria meningitidis (NM), the protein P64k having an amino acid sequence of over 1800 units. A recombinant polynucleotide as in (A), further comprises a nucleotide sequence of a cloning or expression vector. A transformed microorganism contains a recombinant polynucleotide as in (A) or (B). A recombinant proteinaceous substance comprises an amino acid sequence corresp. to the amino acid sequence of at least a part of a protein P64k of NM.

USE - The P64k protein can induce immunologically active antibodies (bactericidal antibodies) and can be used in vaccine prepns. against pathogenic strains or NM. The nucleotide sequence coding for the 64kD protein has been found in all NM serotypes and serogroups tested. The protein, antibodies and nucleic acids can also be used in diagnosi

Dwg.0/0

Dwg.0/0

ABEQ EP 474313 A UPAB: 19940120

A recombinant polynucleotide comprises a nucleotide sequence coding for a protein P64k of Neisseria meningitidis (NM), the protein P64k having an amino acid sequence of over 1800 units. A recombinant polynucleotide as in (A), further comprises a nucleotide sequence of a cloning or expression vector. A transformed microorganism contains a recombinant polynucleotide as in (A) or (B). A recombinant

proteinaceous substance comprises an amino acid sequence corresp. to the amino acid sequence of at least a part of a protein P64k of NM.

USE - The P64k protein can induce immunologically active antibodies (bactericidal antibodies) and can be used in vaccine prepns. against pathogenic strains or NM. The nucleotide sequence coding for the 64kD protein has been found in all NM serotypes and serogroups tested. The protein, antibodies and nucleic acids can also be used in diagnosi

ABEQ US 5286484 A UPAB: 19940329

Recombinant polynucleotide comprises a nucleotide sequence encoding protein P64K of Neisseria meningitidis.

Also claimed are a transformed microorganism containing the nucleotide sequence, and a recombinant DNA comprising the 17-6 gene.

USE - Useful in diagnostic methods and vaccine preparations e.g. bivalent vaccines with a broad immunoprotective spectrum e.g. protein-polysaccharide conjugates, fusion proteins, etc.

Dwg.0/6

ABEQ EP 474313 B UPAB: 19970522

A recombinant polynucleotide, comprising a nucleotide sequence coding for a protein P64k of Neisseria meningitidis, said protein P64k essentially having the amino acid sequence shown in SEQ ID NO:1.

Dwg.0/6

L21 ANSWER 31 OF 31 MEDLINE DUPLICATE 11

ACCESSION NUMBER: 92219993 MEDLINE
DOCUMENT NUMBER: 92219993 PubMed ID: 1560777
TITLE: Role of horizontal genetic exchange in the antigenic variation of the class 1 outer membrane protein of Neisseria meningitidis.
AUTHOR: Feavers I M; Heath A B; Bygraves J A; Maiden M C
CORPORATE SOURCE: Division of Bacteriology, National Institute for Biological Standards and Control, Potters Bar, Hertfordshire, UK.
SOURCE: MOLECULAR MICROBIOLOGY, (1992 Feb) 6 (4) 489-95. Journal code: 8712028. ISSN: 0950-382X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199205
ENTRY DATE: Entered STN: 19920529
Last Updated on STN: 19920529
Entered Medline: 19920514

AB The **nucleotide** sequences of the genes encoding the class 1 outer membrane **protein** of **Neisseria meningitidis** (PorA) from 15 meningococcal isolates have been examined. These strains, isolated over a number of years, represented a variety of serological types, clonal groups, and geographical locations. Analysis of the aligned **nucleotide** sequences showed that the known serological relationships between these **proteins** were not necessarily reflected throughout the **nucleotide** sequences of their genes. The uneven distribution of base substitutions, revealed by a comparison of the informative bases, suggested that these genes possessed a mosaic structure. This structure probably resulted from the horizontal transfer of DNA between strains and would have contributed to both the generation and the spread of novel antigenic variants of the

protein. In addition, the **nucleotide** differences between porA genes from different strains were not consistent with the **nucleotide** sequence divergence of the whole chromosome, as indicated by pulsed-field gel electrophoresis (PFGE) fingerprinting techniques: some strains with divergent PFGE fingerprints shared porA genes with extensive regions of **nucleotide** sequence identity and, conversely, some strains with similar chromosome structures possessed porA genes with different **nucleotide** sequences and serological properties. This suggested that entire genes had been exchanged between strains. Given that the meningococcal class 1 OMP is a major component in novel **vaccines**, some of which are currently undergoing field trials, the potential of horizontal genetic exchange to generate antigenic diversity has implications for the design of such **vaccines**.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 10:05:01 ON 14 NOV 2002) - Author
L22 26 S RUELLE J?/AU AND L1
L23 14 DUP REM L22 (12 DUPLICATES REMOVED)

L23 ANSWER 1 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:331035 BIOSIS
DOCUMENT NUMBER: PREV200200331035
TITLE: Outer membrane vesicles and other options for a meningococcal B vaccine.
AUTHOR(S): Poolman, J. T. (1); Feron, C. (1); Dequesne, G. (1); Denoel, P. A. (1); Dessoy, S. (1); Goraj, K. K. (1); Janssens, D. E. (1); Kummert, S. (1); Lobet, Y. (1); Mertens, E. (1); Monnom, D. Y. (1); Momin, P. (1); Pepin, N. (1); **Ruelle, J.-L. (1)**; Thonnard, J. J. (1); Verlant, V. G. (1); Voet, P. (1); Berthet, F. X. (1)
CORPORATE SOURCE: (1) SmithKline Beecham Biologicals S. A, Rue de l"Institut 89, B-1330, Rixensart: Jan.POOLMAN@sbbio.be Belgium
SOURCE: Ferreiros, Carlos [Editor]; Criado, Maria Teresa [Editor]; Vazquez, Julio [Editor]. (2002) pp. 135-149. Emerging strategies in the fight against meningitis: Molecular and cellular aspects. Edition 1. print.
Publisher: Horizon Scientific Press Wymondham, Norfolk, NR18 0EH, UK.
ISBN: 1-898486-34-4 (cloth).
DOCUMENT TYPE: Book
LANGUAGE: English

L23 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:222707 HCAPLUS
DOCUMENT NUMBER: 137:138812
TITLE: Outer membrane vesicles and other options for a meningococcal B vaccine
AUTHOR(S): Poolman, J. T.; Feron, C.; Dequesne, G.; Denoel, P. A.; Dessoy, S.; Goraj, K. K.; Janssens, D. E.; Kummert, S.; Lobet, Y.; Mertens, E.; Monnom, D. Y.; Momin, P.; Pepin, N.; **Ruelle, J.-L.**; Thonnard, J. J.; Verlant, V. G.; Voet, P.; Berthet, F. X.
CORPORATE SOURCE: UK
SOURCE: Emerging Strategies in the Fight against Meningitis (2002), 135-149. Editor(s): Ferreiros, Carlos; Criado, Maria Teresa; Vazquez, Julio. Horizon Scientific Press: Wymondham, UK.
CODEN: 69CKED; ISBN: 1-898486-34-4
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review. The development of a menB vaccine is difficult. Outer membrane vesicles derived from wild-type strains were protective in teenagers in homologous settings. From Brazilian studies evidence has been obtained that protection > 4 yr can be observed with a monovalent wild-type OMV vaccine even in epidemiol. situations characterized by multi-strain endemic disease. With such OMV vaccines, the serum bactericidal activity (SBA) results demonstrate

serosubtype (PorA) specificity, particularly in infants. Ongoing research has identified potential cross-bactericidal activity inducing menB antigens. This research has recently been supplemented by the possibility to identify antigens from available full genomic sequences. The challenge is to find the right combination of antigens to develop a generic crossreactive menB vaccine.

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
ACCESSION NUMBER: 2000:666880 HCAPLUS
DOCUMENT NUMBER: 133:247256
TITLE: Antigens and their genes from **Neisseria meningitidis** and their use as vaccines and diagnostic reagents
INVENTOR(S): Defrenne, Catherine; Delmelle, Christine; **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000055327	A2	20000921	WO 2000-EP1955	20000307
WO 2000055327	A3	20010104		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1163343	A2	20011219	EP 2000-909329	20000307
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:

GB 1999-5815	A	19990312
GB 1999-9094	A	19990421
GB 1999-9503	A	19990423
GB 1999-9787	A	19990428
GB 1999-10710	A	19990507
WO 2000-EP1955	W	20000307

AB The invention provides BASB082, 083, 091, 092 and 101 proteins and genes encoding BASB082, 083, 091, 092 and 101 proteins and methods for producing such proteins by recombinant techniques. Genomic DNAs encoding the 5 antigens were isolated and sequenced from **Neisseria meningitidis** serogroup B strains ATCC 13090. BASB082 showed similarity to Pseudomonas aeruginosa outer membrane hemin receptor PhuR, BASB083 to Synechocystis ferrichrome-iron receptor FhuA, BASB091 to Pseudomonas aeruginosa OmlA lipoprotein, BASB092 to Pasteurella hemolytic Plp3 lipoprotein,

and BASB0101 to CeuE, a periplasmic binding protein of an ABC ferrichrome transporter system protein of Campylobacter coli. Also provided are diagnostic, prophylactic and therapeutic uses.

L23 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 2000:513808 HCAPLUS
DOCUMENT NUMBER: 133:129846
TITLE: Antigens and their genes from **Neisseria meningitidis** and their use as vaccines and diagnostic reagents
INVENTOR(S): **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043519	A2	20000727	WO 2000-EP428	20000119
WO 2000043519	A3	20001207		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1149164	A2	20011031	EP 2000-901121	20000119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:
GB 1999-1368 A 19990122
GB 1999-1944 A 19990128
GB 1999-2086 A 19990129
GB 1999-3417 A 19990215
GB 1999-3535 A 19990216
WO 2000-EP428 W 20000119

AB The invention provides BASB047, BASB054, BASB068 and BASB069 polypeptides, and polynucleotides encoding BASB047, BASB054, BASB068 and BASB069 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

L23 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 3
ACCESSION NUMBER: 2000:493684 HCAPLUS
DOCUMENT NUMBER: 133:115927
TITLE: **Neisseria meningitidis** antigen BASB053 and gene and their uses in diagnosis and vaccination
INVENTOR(S): **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042193	A1	20000720	WO 2000-EP137	20000110
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1144643	A1	20011017	EP 2000-901085	20000110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: GB 1999-959 A 19990115
GB 1999-1903 A 19990128
WO 2000-EP137 W 20000110

AB The invention provides BASB053 antigen and a gene encoding BASB053 and methods for producing BASB053 with recombinant organisms. Also provided are diagnostic, prophylactic and therapeutic uses. BASB0532 displayed sequence homol. to Pseudomonas ferric pseudobactin M114 receptor protein. The gene was expressed in Escherichia coli.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
ACCESSION NUMBER: 2000:493683 HCAPLUS
DOCUMENT NUMBER: 133:115926
TITLE: **Neisseria meningitidis** antigen BASB052 and gene and their use in diagnosis and vaccination
INVENTOR(S): **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042192	A1	20000720	WO 2000-EP136	20000110
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,				

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1144645 A1 20011017 EP 2000-901525 20000110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.: GB 1999-841 A 19990115
GB 1999-1946 A 19990128
WO 2000-EP136 W 20000110

AB The invention provides BASB052 antigen and a gene encoding BASB052 and methods for producing BASB052 with recombinant organisms. Also provided are diagnostic, prophylactic and therapeutic uses. BASB052 displayed sequence homol. to Neisseria gonorrhoeae tcp protein and contained a signal sequence characteristic of a lipoprotein. The gene was expressed in Escherichia coli. Mice immunized with this recombinant protein produced antibodies to **N. meningitidis**. The BASB052 antigen seemed to be present in all **N. meningitidis** B strains.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 5
ACCESSION NUMBER: 2000:493682 HCAPLUS
DOCUMENT NUMBER: 133:115925
TITLE: Neisseria BASB antigens and genes and their use in diagnosis and vaccination
INVENTOR(S): **Ruelle, Jean-Louis**; Thonnard, Joelle
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000042191	A2	20000720	WO 2000-EP135	20000110
WO 2000042191	A3	20001116		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1144644 A2 20011017 EP 2000-901524 20000110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.: GB 1999-838 A 19990115
GB 1999-952 A 19990115
GB 1999-1945 A 19990128
GB 1999-1948 A 19990128
GB 1999-2074 A 19990129
GB 1999-2078 A 19990129
GB 1999-2088 A 19990129
GB 1999-2879 A 19990209

	GB 1999-2936	A	19990210
	GB 1999-3978	A	19990220
	GB 1999-4133	A	19990223
	GB 1999-4404	A	19990225
	WO 2000-EP135	W	20000110

AB The invention provides **N. meningitidis** BASB antigens and genes and methods for producing BASB antigens with recombinant organisms. Also provided are diagnostic, prophylactic and therapeutic uses. Thus, BASB051 showed similarity to N. gonorrhoeae ComL lipoprotein, BASB057 to N. gonorrhoeae MtrE outer membrane lipoprotein, BASB061 to **N. meningitidis** Mlp protein, BASB066 to **N. meningitidis** CtrA protein, and BASB071 to N. gonorrhoeae HisJ protein. BASB060, BASB063, BASB065 antigens and genes are also reported.

L23 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 6
ACCESSION NUMBER: 2000:402006 HCAPLUS
DOCUMENT NUMBER: 133:38214
TITLE: Antigens and their genes from **Neisseria meningitidis** and their use as vaccines and diagnostic reagents
INVENTOR(S): **Ruelle, Jean-Louis**; Verlant, Vincent Georges Christian Louis
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 171 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034482	A2	20000615	WO 1999-IB2014	19991207
WO 2000034482	A3	20001012		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1137777	A2	20011004	EP 1999-958434	19991207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:

GB 1998-26979	A	19981208
GB 1998-26980	A	19981208
GB 1998-28015	A	19981217
GB 1999-90	A	19990105
WO 1999-IB2014	W	19991207

AB The invention provides BASB041, 43, 44 and 48 polypeptides and polynucleotides encoding BASB041, 43, 44 and 48 polypeptides and methods for producing such polypeptides by recombinant techniques. Genomic DNAs encoding the 4 antigens were isolated and sequenced from **Neisseria meningitidis** serogroup B strains ATCC 13090 and H44/76. Also provided are diagnostic, prophylactic

and therapeutic uses.

L23 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 7
ACCESSION NUMBER: 2000:402004 HCAPLUS
DOCUMENT NUMBER: 133:39137
TITLE: Sequences of **Neisseria meningitidis** protein BASB040, and uses thereof in vaccines and in diagnostic applications
INVENTOR(S): **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034480	A1	20000615	WO 1999-EP9560	19991202
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1137778	A1	20011004	EP 1999-961063	19991202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: GB 1998-26886 A 19981207
WO 1999-EP9560 W 19991202

AB This invention provides sequences of a newly identified **Neisseria meningitidis** protein, designated BASB040. BASB040 was isolated from **N. meningitidis** serogroup B strains ATCC13090 and H44/76. Also disclosed are methods for utilizing BASB040 in vaccines and in diagnostic assays for detecting diseases associated with inappropriate BASB040 activity or levels.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 8
ACCESSION NUMBER: 2000:191222 HCAPLUS
DOCUMENT NUMBER: 132:232744
TITLE: BASB033 genes and proteins from **Neisseria meningitidis** and their use in diagnosis and for vaccination
INVENTOR(S): **Ruelle, Jean-louis**
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015801	A1	20000323	WO 1999-EP6718	19990909
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2343314	AA	20000323	CA 1999-2343314	19990909
AU 9958622	A1	20000403	AU 1999-58622	19990909
EP 1112366	A1	20010704	EP 1999-946160	19990909
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002528057	T2	20020903	JP 2000-570328	19990909

PRIORITY APPLN. INFO.: GB 1998-20003 A 19980914
WO 1999-EP6718 W 19990909

AB The invention provides BASB033 proteins and genes and methods for producing such proteins by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses. The BASB033 protein from the ATCC13090 strain showed significant similarity (35% identity in a 292 amino acid overlap) with the Klebsiella pneumoniae outer membrane phospholipase A protein. The BASB033 protein for the H44/76 strain displayed .apprx.99% sequence identity with that of the ATCC13090 strain. The protein was produced with recombinant E. coli and used to immunize mice. Almost all **N. meningitidis** serogroup B strain tested reacted with the antibodies produced by these mice. Anti-BASB033 antibodies were found in sera of convalescent patients. The promoter region of the BASB033 gene was cloned and sequenced.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 9
ACCESSION NUMBER: 1999:764198 HCAPLUS
DOCUMENT NUMBER: 132:19650
TITLE: Protein and DNA sequences of **Neisseria meningitidis** BASB030 gene epitopes, and uses thereof in vaccine compositions and in assays for the diagnosis of bacterial infections
INVENTOR(S): **Ruelle, Jean-louis**
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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     WO 9961620          A2     19991202        WO 1999-EP3603    19990526
     WO 9961620          A3     20000302
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,
             CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2329269          AA     19991202        CA 1999-2329269   19990526
     AU 9945006          A1     19991213        AU 1999-45006     19990526
     EP 1080198          A2     20010307        EP 1999-927754    19990526
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, FI
     JP 2002516105       T2     20020604        JP 2000-551004    19990526
     BR 9911601          A      20010206        BR 1999-11601     19991202
     NO 2000005952       A      20010118        NO 2000-5952      20001124
PRIORITY APPLN. INFO.:                         GB 1998-11260    A  19980526
                                               WO 1999-EP3603   W  19990526
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AB The invention provides **Neisseria meningitidis** BASB030 polypeptides and polynucleotides encoding BASB030 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are antibodies, diagnostic, prophylactic and therapeutic uses thereof. The invention also relates to the use of an immunogenic fragment, preferably the extracellular domain, of the provided protein in a vaccine. The invention further relates to the use of the provided protein and/or gene in the diagnosis of bacterial infections, especially those of Neisseria.

L23 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 10

ACCESSION NUMBER: 1999:736937 HCAPLUS
DOCUMENT NUMBER: 131:347559
TITLE: Basb029 polynucleotide(s) and polypeptides from **Neisseria meningitidis**
INVENTOR(S): **Ruelle, Jean-Louis**
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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     PATENT NO.          KIND   DATE            APPLICATION NO.   DATE
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     WO 9958683          A2     19991118        WO 1999-EP3255    19990507
     WO 9958683          A3     20000406
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,
             CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
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CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2328403	AA	19991118	CA 1999-2328403	19990507
AU 9941420	A1	19991129	AU 1999-41420	19990507
AU 750032	B2	20020711		
EP 1078063	A2	20010228	EP 1999-924946	19990507
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
BR 9910396	A	20011030	BR 1999-10396	19990507
JP 2002514424	T2	20020521	JP 2000-548474	19990507
NO 2000005696	A	20010111	NO 2000-5696	20001110

PRIORITY APPLN. INFO.: GB 1998-10276 A 19980513
WO 1999-EP3255 W 19990507

AB The invention provides BASB029 polypeptides and polynucleotides encoding BASB029 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses as novel vaccine compns. are relayed. Prognostic and serotyping and mutation assays are all provided. In addition, antagonist and agonist screening assays are provided. Applications for immunization are relayed as well.

L23 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 11
ACCESSION NUMBER: 1999:708914 HCAPLUS
DOCUMENT NUMBER: 131:333043
TITLE: Protein and DNA sequences of **Neisseria meningitidis** BASB013 gene, and uses thereof in vaccine compositions and in assays for the diagnosis of bacterial infections
INVENTOR(S): **Ruelle, Jean-louis**
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955872	A1	19991104	WO 1999-EP2765	19990420
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326404	AA	19991104	CA 1999-2326404	19990420
AU 9938221	A1	19991116	AU 1999-38221	19990420
EP 1073747	A1	20010207	EP 1999-920767	19990420
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: GB 1998-8734 A 19980423
WO 1999-EP2765 W 19990420

AB This invention provides the sequence of the **Neisseria meningitidis** BASB013 gene, which encodes a protein that has homol. to the MucD protein of Pseudomonas aeruginosa and to the HtrA

serine protease found in many bacteria. The invention also relates to the use of an immunogenic fragment, preferably the extracellular domain, of the provided protein in a vaccine. The invention further relates to the use of the provided protein and/or gene in the diagnosis of bacterial infections, especially those of Neisseria.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 12
ACCESSION NUMBER: 1998:71228 HCAPLUS
DOCUMENT NUMBER: 128:164910
TITLE: Genes and gene products specific to pathogenicity of **Neisseria meningitidis**, methods for obtaining them and their biological applications
INVENTOR(S): Nassif, Xavier; Tinsley, Colin; Achtman, Mark; **Ruelle, Jean-Louis**; Vinals, Carla; Merker, Petra
PATENT ASSIGNEE(S): Institut National De La Sante Et De La Recherche Medicale (INSERM), Fr.; Max-Planck-Gesellschaft Zur Forderung Der Wissenschaften E.V., Berlin; Smithkline Beecham; Nassif, Xavier; Tinsley, Colin; Achtman, Mark; Ruelle, Jean-Louis; Vinals, Carla; Merker, Petra
SOURCE: PCT Int. Appl., 150 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9802547	A2	19980122	WO 1997-FR1295	19970711
WO 9802547	A3	19980409		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2751000	A1	19980116	FR 1996-8768	19960712
FR 2751000	B1	19981030		
AU 9736977	A1	19980209	AU 1997-36977	19970711
AU 730423	B2	20010308		
EP 951552	A2	19991027	EP 1997-933727	19970711
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001504684	T2	20010410	JP 1998-505685	19970711
US 2002164603	A1	20021107	US 2001-928457	20010814

PRIORITY APPLN. INFO.:

FR 1996-8768	A	19960712
WO 1997-FR1295	W	19970711
US 1999-214759	B1	19990422

AB DNA sequences that are found in **Neisseria**

meningitidis that are unique to it, specific to pathogenesis, and not found in N. gonorrhoeae, N. lactamica or N. cinerea are cloned by representational difference anal. A number of genes associated with pathogenesis that are found in **N. meningitidis** and N.gonorrhoeae including the genes of biosynthesis of the polysaccharide capsule (frpA, frpC, porA), pilC, the genes for rotamase, IgA protease, pilin, transferring-binding proteins and opacity proteins and the sequence IS1106. The genes map in clusters in three regions of the chromosome. The gene products can be used as antigens in the raising of antibodies for diagnostic or therapeutic uses, e.g. specific immunoassays or vaccines. The roles of the genes in pathogenesis can be studied by targeted deletion.

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